

Catalogue of the type material of Scarabaeoidea (Coleoptera) deposited in the Research Institute of Evolutionary Biology, Tokyo, Japan

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Abstract

A detailed catalogue of the type material of the Scarabaeoidea housed in the Research Institute of Evolutionary Biology, Tokyo, Japan is listed. The catalogue includes the data of the type material of four families and 111 species.

Keywords

Allotype, Geotrupidae, holotype, Lucanidae, neotype, paratype, Scarabaeidae, Trogidae

Introduction

In this report we present a catalogue of the type material of Scarabaeoidea housed in the Research Institute of Evolutionary Biology, Tokyo, Japan (RIEB). The beginning of the RIEB collection dates back to 1950, when the first natural objects were deposited at the Research Institute of Thremmatology of the Tokyo University of Agriculture (RIT) established that year. RIT was transformed into an incorporated foundation in 1974 and renamed Research Institute of Evolutionary Biology (Yamamoto 2000). The Lepidoptera collection in the RIEB was listed in detail by Aoki et al. (2005, 2008) and Yamaguchi et al. (2006, 2008, 2009, 2011, 2017), but the Coleoptera collection has never been catalogued. This creates

a problem because well-organized museum collections and published type specimen catalogues are very important to facilitate taxonomic and systematic investigations of animals.

The majority of the types of Scarabaeidae deposited in the RIEB originate from the collection of Mr Yoshikazu Miyake (1926–2003), a well-known Japanese amateur specialist on Scarabaeidae, who was also the author of those taxa. A part of types of Miyake's species is also housed in the National Museum of Nature and Science, Tokyo (NMNS) and the Nagaoka Municipal Science Museum, Niigata (NMSM). Unfortunately, some of his types are missing.

In addition, other researchers that contributed to the Scarabaeoidea type collection in RIEB are: Dirk Ahrens, Aleš Bezděk, Toshiyuki Ichikawa, Takeshi Itoh (Takeshi Matsumoto), Kimio Masumoto, Sizumu Nomura, Teruo Ochi, and Kaoru Wada.

Materials and methods

The scientific names of higher taxa in this catalogue follow Scholtz and Grebennikov (2016). The structure of each entry is as follows:

- original combination of the taxon name;
- original combination and spelling of the taxon name, followed by the author, year of description, and pagination;
- type material, number of specimens (including sex, if known), and exact label data. A double slash '/' indicates separate labels and single slash '/' indicates lines within each label. The words in Japanese or Chinese were transcribed into Roman alphabet. Paratypes with discrepancies between collection data on the label and data quoted in the original description are indicated by '[[]]';
- remarks on types condition (given only for holotypes and neotypes);
- current taxonomic status;
- remarks, if any.

The majority of holotypes and neotypes were photographed with a Nikon D7200 camera using a Nikon AF-S DX Micro NIKKOR 40 mm f/2.8 G lens, and some types were photographed with a KEYENCE VHX-1000 Digital Microscope.

Catalogue

Family Geotrupidae Subfamily Geotrupinae Genus Sinogeotrupes

Sinogeotrupes taiwanus Miyake & Yamaya

Sinogeotrupes taiwanus Miyake & Yamaya, 1995: 32-34.

Note. The following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Paratypes. 3 exs.: 1 ex. 'Wusha / –VI–1941 / R. Boloudo // Paratype / Sinogeotrupes taiwanus / Y. MIYAKE et YAMAYA, 1995'. 1 ex. 'Wu sha / Formosa / 21. Viii. 1941 / Col. Bumua Tin // Geotrupes / subshiatelluo FAIRMAIR / DET. Y. MIYAKE // Paratype / Sinogeotrupes taiwanus / Y. MIYAKE et YAMAYA, 1995'. 1 ex. '台湾=taiwan 台中= taichû / 関刀山= guandaoshan / 1993. V. 31 // Paratype / Sinogeotrupes taiwanus / Y. MIYAKE et YAMAYA, 1995'.

Current status. *Phelotrupes* (*Sinogeotrupes*) *taiwanus* (Miyake and Yamaya, 1995), see Nikolajev et al. (2016).

Remark. In addition to the paratypes mentioned above, the following specimens labeled as paratypes are not designated in the original description: 3 exs. 'Tattaka / Formosa / 10. Vi. 1965 / T. Shirozu // Paratype / Sinogeotrupes taiwanus / Y. MIYAKE et YAMAYA, 1995'. 1 ex. '(FORMOSA) / Mt Rata / Vi–Vii–1972 / L. F, Hang // Paratype / Sinogeotrupes taiwanus / Y. MIYAKE et YAMAYA, 1995'. 1 ex. '(FORMOSA) / Mt Rata / –Vii–1972 / L. F, Hang // Paratype / Sinogeotrupes taiwanus / Y. MIYAKE et YAMAYA, 1995'. 2 exs. '[Taiwan] / 台中= taichû 閏刀山= guandaoshan / 3–VI–1993 // Paratype / Sinogeotrupes taiwanus / Y. MIYAKE et YAMAYA, 1995'. 1 ② '[Taiwan] / 台中= taichû 閏刀山= guandaoshan / 3–VI–1993 // Paratype / Sinogeotrupes taiwanus / Y. MIYAKE et YAMAYA, 1995'. 3 exs. 'Paratype / Sinogeotrupes taiwanus / Y. MIYAKE et YAMAYA, 1995'.

Family Lucanidae Subfamily Lucaninae Genus *Aegus*

Aegus laevicollis nakanei Ichikawa & Imanishi

Aegus laevicollis nakanei Ichikawa & Imanishi, 1976: 9.

Note. The following paratype is deposited in RIEB (ex coll. Y. Kusui):

Paratype. 1 ex.: [[1 ♀ 'Mt. Yonahadake, / Kunigami-son, / Is. Okinawa-Hontō, / 28. VI. 1972 (the date given in the original description is 16–17. VI. 1970), / HEI-KICHI IRIE leg., // KUSUI // Paratype']].

Current status. Aegus nakanei nakanei Ichikawa and Imanishi, 1976, see Huang and Chen (2017).

Family Scarabaeidae Subfamily Aphodiinae Genus *Aphodius*

Aphodius (Agoliinus) tanakai Masumoto

Aphodius (Agoliinus) tanakai Masumoto, 1981: 73-74.

Note. The following paratype is deposited in RIEB (ex coll. K. Masumoto):

Paratype. 1 ex.: 'Nikko / Date: 23 V 1981 / K. MASUMOTO leg. // Paratype / Aphodius (Agr) / tanakai MASUMOTO'.

Current status. Agoliinus tanakai (Masumoto, 1981), see Dellacasa et al. (2016).

Aphodius (Phaeaphodius) himalorectus Ahrens & Stebnicka

Aphodius (Phaeaphodius) himalorectus Ahrens & Stebnicka, 1997: 12-13.

Note. The following paratypes are deposited in RIEB (ex coll. D. Ahrens):

Paratypes. 2 exs.: 'Phalante 20. 3. / unt. Nebelwaldstufe / 2100–2300 m // PARA-TYPUS / *Aphodius* (*Phaeaphodius*) *himalorectus* sp. n. / det. D. AHRENS 1994'.

Current status. *Phaeaphodius himalorectus* (Ahrens and Stebnicka, 1997), see Dellacasa et al. (2016).

Aphodius (Sinodiapterna) zeni Ochi

Aphodius (Sinodiapterna) zeni Ochi, 1991: 53-55.

Note. The following paratype is deposited in RIEB (ex coll. T. Ochi):

Paratype. 1 ex.: 'SUNGKAN / C. TAIWAN / 29–V. 1987 / K. LAH // PARA-TYPE / Aphodius (Sinodiapterna) / zeni / OCHI 1991'.

Current status. Sinodiapterna zeni (Ochi, 1991), see Dellacasa et al. (2016).

Genus Rhyparus

Rhyparus kitanoi Miyake

Figure 1A

Rhyparus kitanoi Miyake, 1982: 65-67.

Note. The holotype and following specimen are deposited in RIEB (ex coll. Y. Miyake):

Holotype (3). 'C, Sata (KYUSHU) Japan / 25, VI 1971 / T. Kitano leg. // PARA-TYPE // Holotype: / Rhyparus / kitanoi / Y. MIYAKE, 1992'. (Fig. 1A)

Type condition. The right and left protarsus and the right antenna of the holotype are missing.

Current status. Rhyparus kitanoi kitanoi Miyake, 1982, see Ochi (2001).

Remark. In addition to the holotype mentioned above, the following specimen labeled as paratype is not designated in the original description: 1 ex.: 'Sesonoura / Is. Shimokoshiki / Kagoshima-pref. / 18. VI. 1982 / S. Imasaka leg. // Paratype: Rhyparus / kitanoi / Y. MIYAKE, 1992'.

Subfamily Scarabaeinae Genus *Caccobius*

Caccobius bawangensis Ochi, Kon & Kikuta

Caccobius bawangensis Ochi, Kon & Kikuta, 1997: 262-264.

Note. The following paratype is deposited in RIEB (ex coll. T. Ochi):

Paratype. 1 ex.: 'Mt. Bawang / Sarawak S. / VIII. 1991 / M. Kon Coll. // PARA-TYPE / Caccobius / bawangensis OCHI, KON and KIKUTA'.

Current status. Valid species.

Genus Copris

Copris (Microcopris) mindorensis Ochi

Copris (Microcopris) mindorensis Ochi, 1992: 13.

Note. The following paratype is deposited in RIEB (ex coll. T. Ochi):

Paratype. 1 ex.: 'MT. HALKON / IS. MINDRO / 28–XII. 1988 / D. MO-HAGAN // PARATYPE / Copris / (Microcopris) / mindorensis / OCHI, 1992. Current status. Valid species.

Genus Onthophagus

Onthophagus setchan Masumoto

Onthophagus setchan Masumoto, 1984: 80-81.

Note. The following paratype is deposited in RIEB (ex coll. K. Masumoto):

Paratype. 1 ex.: 'FENGCHIFU / FORMOSA / 7–VII. 74. / T. OCHI // PARA-TYPE / Onthophagus / setchan / MASUMOTO (1984)'.

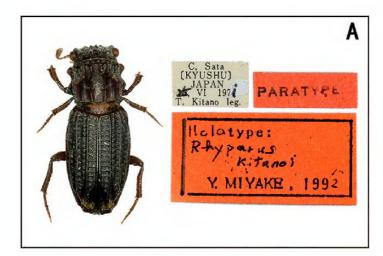
Current status. Valid species.

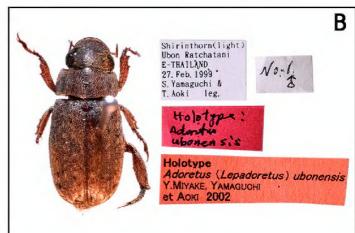
Onthophagus (Parascatonomus) acuticollis sakishimanus Nomura

Onthophagus (Parascatonomus) acuticollis sakishimanus Nomura, 1976a: 29.

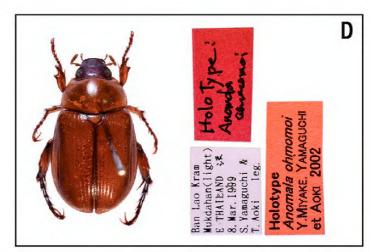
Note. The following paratypes are deposited in RIEB (ex coll. S. Nomura):

Paratypes. 6 exs.: 3 ♂ 'Kanpira / Iriomote Is. / Yaeyama Iss. / 12. VII. 1975 / R. YANO leg. // ♂ // Onthophagus (P.) / acuticollis / sakishimanus / NOMURA (1976)'. 3 ♀ 'Kanpira / Iriomote Is. / Yaeyama Iss. / 12. VII. 1975 / R. YANO leg. // ♀ // Onthophagus (P.) / acuticollis / sakishimanus / NOMURA (1976)'.









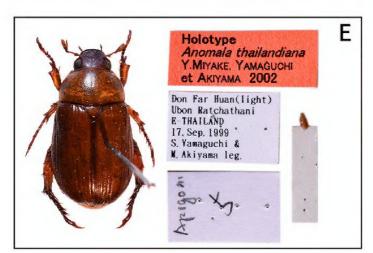








Figure I. Habitus of holotype specimens. **A** *Rhyparus kitanoi* (Miyake) **B** *Adoretus* (*Lepadoretus*) *ubonensis* (Miyake, Yamaguchi et Aoki) **C** *Anomala flavoguttata* Miyake **D** *Anomala ohmomoi* Miyake, Yamaguchi et Aoki **E** *Anomala thailandiana* Miyake, Yamaguchi et Akiyama **F** *Callistethus isidai* Miyake **G** *Malaia castanoptera* Miyake **H** *Malaia macassara* Miyake.

Current status. *Parascatonomus (Necramator) acuticollis sakishimanus* (Nomura, 1976), see Ochi and Kon (2017).

Onthophagus (Parascatonomus) murasakianus Nomura

Onthophagus (Parascatonomus) murasakianus Nomura, 1976a: 30.

Note. The following paratype is deposited in RIEB (ex coll. S. Nomura):

Paratype. 1 ex.: 'Kanpira, / Iriomote Is. / Yaeyama Iss. / 12. VII 1975 / R. YANO leg. // PARATYPE / Onthophagus (P.) / murasakianus / NOMURA (1976)'.

Current status. Parascatonomus (Necramator) murasakianus (Nomura, 1976), see Ochi and Kon (2017).

Onthophagus (Parascatonomus) takedai Ochi & Araya

Onthophagus (Parascatonomus) takedai Ochi & Araya, 1992: 99-100.

Note. The following paratype is deposited in RIEB (ex coll. T. Ochi):

Paratype. 1 ex.: 'QUESON. N. P / IS. LUZON / 10–VIII. 1981 / K. SUGINO // PARATYPE / Onthophagus / (Parascatonomus) / takedai / OCHI et ARAYA, 1992'.

Current status. Parascatonomus (Granulidorsum) takedai (Ochi et Araya, 1992), see Ochi and Kon (2017).

Onthophagus (Proagoderus) watanabei Ochi & Kon

Onthophagus (Proagoderus) watanabei Ochi & Kon, 2002: 306-311.

Note. The following paratype is deposited in RIEB (ex coll. T. Ochi):

Paratype. 1 ex.: 'SEPIROK / N. BORNEO / 4–VII. 1985 / M. KON // PARA-TYPE / Onthophagus / (Proagoderus) / watanabei / OCHI and KON. 2002'.

Current status. Proagoderus watanabei (Ochi et Kon, 2002), see Philips (2016).

Onthophagus (Strandius) hiurai Ochi

Onthophagus (Strandius) hiurai Ochi, 1984: 63-65.

Note. The following paratype is deposited in RIEB (ex coll. T. Ochi):

Paratype. 1 ex.: 'PILU / Taiwan / 21, VIII, 1979 / K. Sugino leg. // PARATYPE / Onthophagus (St) / hiurai / OCHI (1984)'.

Current status. Onthophagus (Phanaeomorphus) potanini hiurai Ochi, 1984, see Ziani and Bezděk (2016).

Subfamily Rutelinae Genus *Adoretus*

Adoretus (Lepadoretus) ubonensis Miyake, Yamaguchi & Aoki Figure 1B

Adoretus (Lepadoretus) ubonensis Miyake, Yamaguchi, Aoki & Akiyama, 2002: 62-63.

Note. The holotype is deposited in RIEB (ex coll. Y. Miyake):

Holotype (3). 'Shirinthorn (light) / Ubon Ratchatani / E–THAILAND / 27. Feb. 1999 / S. Yamaguchi and / T. Aoki leg. // No. 1 / 3 // Holotype: / Adoretus / ubonensis // Holotype / *Adoretus* (*Lepadoretus*) *ubonensis* / Y. MIYAKE, YAMAGU-CHI / et AOKI 2002'. (Fig. 1B)

Type condition. The left mesotarsus and the left metaleg of the holotype are missing.

Current status. Junior subjective synonym of *Adoretus compressus* (Weber, 1801), see Kobayashi (2018).

Genus Anomala

Anomala flavoguttata Miyake

Figure 1C

Anomala flavoguttata Miyake, 2000: 108-109.

Note. The holotype is deposited in RIEB (ex coll. Y. Miyake):

Holotype (3). 'Sapa=Chapa / N. Vietnam / 20. V. 1994 / N. KATSURA // Holotype: Anomala / flavoguttata / Y. MIYAKE, 2000'. (Fig. 1C)

Type condition. The aedeagus of the holotype is pinned separately. **Current status.** Valid species.

Anomala ohmomoi Miyake, Yamaguchi & Aoki

Figure 1D

Anomala ohmomoi Miyake, Yamaguchi, Aoki & Akiyama, 2002: 58-60.

Note. The holotype and the following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Holotype (分). 'Ban Lao Kram / Mukdahan (light) / E—THAILAND沢= sawa / 8. Mar. 1999 / S. Yamaguchi and / T. Aoki leg. // Holo Type: / Anomala / ohmomoi // Holotype / *Anomala ohmomoi* / Y. MIYAKE, YAMAGUCHI / et AOKI 2002'. (Fig. 1D)

Paratypes. 4 exs.: 'Ban Lao Kram / Mukdahan (light) / E—THAILAND沢= sawa / 8. Mar. 1999 / S. Yamaguchi and / T. Aoki leg. // Paratype / Anomala ohmomoi / Y. MIYAKE, YAMAGUCHI / et AOKI 2002'.

Current status. Valid species.

Anomala thailandiana Miyake, Yamaguchi & Akiyama

Figure 1E

Anomala thailandiana Miyake, Yamaguchi, Aoki & Akiyama, 2002: 60-61.

Note. The holotype is deposited in RIEB (ex coll. Y. Miyake):

Holotype (3). 'Don Far Huan (light) / Ubon Ratchathani / E-THAILAND / 17. Sep. 1999 / S. Yamaguchi and / M. Akiyama leg. [white label, front] // Apigoni / 5 [white label, back] // Holotype / Anomala thailandiana / Y. MIYAKE, YAMAGUCHI / et AKIYAMA 2002'. (Fig. 1E)

Type condition. The aedeagus of the holotype is pinned separately. **Current status.** Valid species.

Genus Callistethus

Callistethus isidai Miyake

Figure 1F

Callistethus isidai Miyake, 1987: 5-6.

Note. The holotype and the following paratype are deposited in RIEB (ex coll. Y. Miyake):

Holotype (3). '[Taiwan] / Lishan to Pilu / 31–VII–1972 / Y. Miyake leg. // Holotype: / Callistethus isidai / Y. MYAKE, 1987'. (Fig. 1F)

Paratype. 1 ex.: '[Taiwan] / Lishan to Pilu / 31–VII–1972 / Y. Miyake leg. // Paratype / Callistethus isidia / Y. MIYAKE, 1987'.

Type condition. The right and left metatarsi of the holotype are missing.

Current status. Callistethus plagiicollis isidai Miyake, 1987, see Zorn and Bezděk (2016).

Remark. The habitus photograph in the original description does not agree with the holotype. This is also the case with some other species described by Miyake. Apparently, he did not intend to provide the photographs of the holotypes. Also, as noted below, we were unable to trace some specimens illustrated in the original descriptions.

Genus Kibakoganea

Kibakoganea ohtanii Miyake & Muramoto

Kibakoganea ohtanii Miyake & Muramoto, 1992: 22-24.

Note. The following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Paratypes. 2 exs.: [[1 ♂, 1 ♀ 'Tam Dao / N. VIETNAM / 28–30, IV, 1991 (the date given in the original description is 28–30. III. 1991) / M. Fujioka and / R. Muramoto – leg. // PARATYPE / Kibakoganea / ohtanii / Y. MIYAKE et / MURAMOTO, 1992.']].

Current status. Junior subjective synonym of *Kibakoganea sexmaculata* (Kraatz, 1900), see Miyake (2003).

Genus Malaia

Malaia castanoptera Miyake

Figure 1G

Malaia castanoptera Miyake, 2000: 112.

Note. The holotype is deposited in RIEB (ex coll. Y. Miyake):

Holotype (3). 'Malino, Celebes / Indonesia / 21 Nov 1944 // malino / 2603.11.21 // Holotype: Malaia / castanoptera / Y. MIYAKE, 2000'. (Fig. 1G)

Paratypes. 7 exs.: 1 ♂, 3 ♀ 'Malino, Celebes / Indonesia / 21 Nov 1944 // malino / 2603.11.21 // Paratype: Malaia / castanoptera / Y. MIYAKE, 2000'. 2 exs. 'Malino, Celebes / Indonesia / 21 Nov 1944 // malino / 2603.11.21 // Paratype: Malaia / castanoptera / Y. MIYAKE, 2000'. 1 ex. 'malino / 2603.11.21 // Paratype: Malaia / castanoptera / Y. MIYAKE, 2000'.

Current status. Valid species.

Remark. The habitus photo in the original description belongs to the female paratype with the label 'Malino, Celebes / Indonesia / 21 Nov 1944 // malino / 2603.11.21'.

Malaia cyanea Miyake

Malaia cyanea Miyake, 1996: 38-39.

Note. The following paratypes are deposited is RIEB (ex coll. Y. Miyake):

Paratypes. 2 exs.: 1 ♂ '32 km from / Palopo / Surawesi / 10. VI. 1982 // Paratype: / Malaia cyanea / Y. MIYAKE, 1996'. 1 ♀ 'Punchak–Lombanan / Mamasa, / S. SULAWE-SI / 1991. AUG. 10. / N. Kashiwai–leg. // Paratype: / Malaia cyanea / Y. MIYAKE, 1996'.

Current status. Valid species.

Malaia macassara Miyake

Figure 1H

Malaia macassara Miyake, 2000: 109-110.

Note. The holotype and the following paratype are deposited in RIEB (ex coll. Y. Miyake): **Holotype** (3). 'Lampbatter / Sulawesi / 23–25. VIII. 1999 / M. Takai // Holotype: Malaia / macassara / Y. MIYAKE, 2000'. (Fig. 1H)

Paratype. 1ex.: 1 & 'Lampbatter / Sulawesi / 23–25. XII. 1999 / M. Takai leg. // Paratype: Malaia / macassara / Y. MIYAKE, 2000'.

Type condition. The left protarsus and metatarsus of the holotype are missing. **Current status.** Valid species.

Malaia rufofemorata Miyake

Malaia rufofemorata Miyake, 1996: 40-41.

Note. The following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Paratypes. 4 exs.: 1 ♂, 1 ♀ 'Puncak, Palopo / VI–VII, 1989 / Central SULAWESI // Paratype: Malaia / rufofemorata / Y. MIYAKE, 1996'. 2 ♂ 'Palu Palolo / VIII. 1990 / Central SULAWESI // Paratype: Malaia / rufofemorata / Y. MIYAKE, 1996'.

Current status. Valid species.

Remark. In addition to the paratypes mentioned above, the following specimens labeled as paratypes are not designated in the original description: 2 ♂, 1 ♀ 'Palolo, Palu / 01–10/XI. 1990 / native coll. / CELEBES // Paratype: Malaia / rufofemorata / Y. MIYAKE, 1996'.

Malaia sulawesi Miyake

Malaia sulawesi Miyake, 1996: 41-42.

Note. The following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Paratypes. 58 exs.: 1 ♂ 'Mt. Pedamaran / Tana Toraja / 1985. III–17 / South SULAWESI / Soma, K. leg. // Paratype: / Malaia / sulawesi / Y. MIYAKE, 1996'. 1 ex. 'Puncak Palopo / 1989. III. 31 / Centr. CELEBES // Paratype: / Malaia / sulawesi / Y. MIYAKE, 1996'. 3 exs. 'Palu Pulu / C. Sulawesi / II. 1989 // Paratype: / Malaia / sulawesi / Y. MIYAKE, 1996'. [[44 exs. 'Mt. Pedamaran / S. Sulawesi (real data is C. Sulawesi) / 20. X. 1983 (real date is 20. V. 1983) / K. Soma leg. // Paratype: / Malaia / sulawesi / Y. MIYAKE, 1996']]. [[9 exs. 'Mt. Pedamaran / Tana Toraja / 1983. X–20 (real date is 1983. V–20) / South SULAWESI (real data is Central SULAWESI) / Soma, K. leg. // Paratype: / Malaia / sulawesi / Y. MIYAKE, 1996']].

Current status. Valid species.

Malaia taoi Miyake

Malaia taoi Miyake, 1996: 39-40.

Note. The following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Paratypes. 4 exs.: 1 ♂ '37 km from / Palopo C.- / Sulawesi / 9. IV. 1982 // Paratype: / Malaia / taoi / Y. MIYAKE, 1996'. 1 ♀ '32 km from / Palopo / Surawesi / 10. VI. 1982 // 37 km from / Palopo C.- / Sulawesi / 10. VI. 1982 // Paratype: / Malaia / taoi / Y. MIYAKE, 1996'. 1 ♂ '37 km from / Palopo C.- / Sulawesi / 11. IV. 1982 // Paratype: / Malaia / taoi / Y. MIYAKE, 1996'. 1 ♀ '32 km from / Palopo / Surawesi / 13. VI. 1982 // 37 km from / Palopo C.- / Sulawesi / 13. VI. 1982 // Paratype: / Malaia / taoi / Y. MIYAKE, 1996'.

Current status. Valid species.

Malaia tondanoensis Miyake

Malaia tondanoensis Miyake, 1996: 42-43.

Note. The following paratype is deposited in RIEB (ex coll. Y. Miyake):

Paratype. 4exs.: 'Tondano / N. Sulawesi / 10–IV–1989 / Y. Miyake leg. // Paratype: / Malaia / tondanoensis / Y. MIYAKE, 1996'.

[[1 ex. 'Tangkoko N. / N. Sulawesi / 10–III–1989 (the date given in the original description is 10–IV–1989) / Y. Miyake leg. // Paratype: / Malaia / tondanoensis / Y. MIYAKE, 1996']]. [[2 exs. 'Tondano / N. Sulawesi / 9–IV–1989 (the date given in the original description is 10–IV–1989) / Y. Miyake leg. // Paratype: / Malaia / tondanoensis / Y. MIYAKE, 1996']].

Current status. Valid species.

Malaia toraja Miyake

Figure 2A

Malaia toraja Miyake, 2000: 110-111.

Note. The holotype and following paratypes are deposited in RIEB (ex coll. Y. Miyake): Holotype (3). 'Mt. Pedamaran / Tana Traja / 20–X. 1983 / K. SOHMA lgd. / South SULAWESI // Holotype: Malaia / toraja / Y. MIYAKE, 2000'. (Fig. 2A)

Paratypes. 27 exs.: 1 ♂ 'Mt. Pedamaran / Tana Traja / 20–X. 1983 / K. SOHMA lgd. // Paratype: Malaia / toraja / Y. MIYAKE, 2000'. 9 exs. 'Mt. Pedamaran / Tana Traja / 20–X. 1983 / K. SOHMA lgd. // Paratype: Malaia / toraja / Y. MIYAKE, 2000'. 2 exs. 'Mt. Pedamaran / S. Sulawesi / 20. X. 1983 / K. Soma leg. // Paratype: Malaia / toraja / Y. MIYAKE, 2000'.8 exs. 'Puncak, Palopo / VI–VII, 1989 / Central SULAWESI // Paratype: Malaia / toraja / Y. MIYAKE, 2000'. 2 exs. 'Central

SULAWESI / Puncak, Palopo / VI–VII, 1989 // Paratype: Malaia / toraja / Y. MI-YAKE, 2000'. 1 & 'Puncak Palopo / 1989. / Centr. CELEBES // SI [yellow label] // Paratype: Malaia / toraja / Y. MIYAKE, 2000'. 4 exs. 'Puncak Palopo / 1989. / Centr. CELEBES // SI [yellow label] // Paratype: Malaia / toraja / Y. MIYAKE, 2000'.

Current status. Valid species.

Remark. The habitus photo in the original description belongs to the female paratype with the label 'Mt. Pedamaran / Tana Toraja / S. Sulawesi / 7, VIII, 1988 / K. Soma leg.'.

In addition to the paratypes listed above, the following specimens labeled as the paratypes are not designated in the original description: 1 ♀ 'Mt. Pedamaran / Tana Toraja / S. Sulawesi / 7, VIII, 1988 / K. Soma leg. // SI [yellow label] // Paratype: Malaia / toraja / Y. MIYAKE, 2000'. 1 ex. '(Pulu Pulu) / C. Sulawesi / INDONE-SIA / Dec. 1988 // [yellow label] // Paratype: Malaia / toraja / Y. MIYAKE, 2000'. 2 exs. 'Puncak, Palopo / Centr. CELEBES / 1989. I / INDONESIA // [yellow label] // Paratype: Malaia / toraja / Y. MIYAKE, 2000'. 1 ex. 'Puncak Palopo / 1989. III. 31 / Centr. CELEBES // Paratype: Malaia / toraja / Y. MIYAKE, 2000'. 3 exs. 'Palu, Palolo / VII 1989 / Central SULAWESI // Paratype: Malaia / toraja / Y. MIYAKE, 2000'.

Genus Mimela

Mimela kitanoi Miyake

Figure 2B

Mimela kitanoi Miyake, 1987: 7–8.

Note. The holotype is deposited in RIEB (ex coll. K. Wada):

Holotype (♀). 'Larashan / Hsinchu Hs. / VI. 1975, / Fang leg // Holotype: / Mimela kitanoi / Y. MIYAKE, 1987 // Kaoru WADA / Collection 2001'. (Fig. 2B)

Current status. Junior subjective synonym of *Mimela flavocincta* Lin, 1966, see Zorn and Bezděk (2016).

Mimela marginipennis Miyake

Figure 2C

Mimela marginipennis Miyake, 1994: 151.

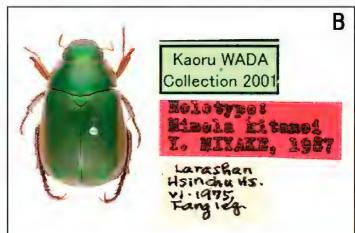
Note. The holotype is deposited in RIEB (ex coll. Y. Miyake):

Holotype (3). '[Borneo] / Crocker Range / 1800–1400m alt. / nr. Keningau C. / X. 1988. M. ITOI leg. // Holotype: / Mimela / marginipennis / Y. MIYAKE, 1994'. (Fig. 2C)

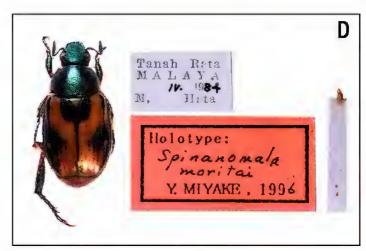
Type condition. The aedeagus of the holotype is pinned separately, and the left mesotarsus is missing.

Current status. Junior subjective synonym of *Mimela margarita* Arrow, 1910, see Wada (2001).









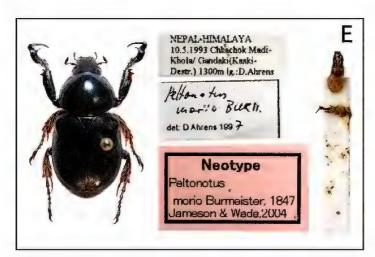








Figure 2. Habitus of holotype and neotype specimens. **A** *Malaia toraja* Miyake **B** *Mimela kitanoi* Miyake **C** *Mimela marginipennis* Miyake **D** *Spinanomala moritai* Miyake **E** *Peltonotus morio sawaii* Miyake **G** *Apogonia ohmomoi* Miyake **H** *Apogonia ovata* Miyake et Yamaguchi.

Mimela sawaii Miyake

Mimela sawaii Miyake, 1994: 149-150.

Note. The following paratype is deposited in RIEB (ex coll. Y. Miyake):

Paratype. 1 ex.: 1 \circlearrowleft 'Crocker Range / (1000–1400 m) / Nr. Keningau C. / N. Borneo, – / 15–V–1989 // [blue label] // Paratype: / Mimela / sawaii / Y. MIYAKE, 1994'.

Current status. Junior subjective synonym of *Mimela pallidicauda* Arrow, 1910, see Wada (2001).

Mimela suspecta Miyake

Mimela suspecta Miyake, 1994: 150.

Note. The following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Paratype. 2ex.: 1 & 'Mt. Trus Madi / (SW Slopa 1200m alt.) / Sabah, MALAYSIA / 14–IV–1993 / Minoru SAWAI leg. // Paratype: / Mimela / suspecta / Y. MIYAKE, 1994'. [[1 ex. 'Mt. Trus Madi / (SW Slopa 1200m alt.) / Sabah, MALAYSIA / 18–IV–1993 (the date given in the original description is 4–IV–1993) / Minoru SAWAI leg. // [yellow label] // Paratype: / Mimela / suspecta / Y. MIYAKE, 1994']].

Current status. Valid species.

Remark. In addition to the paratypes mentioned above, the following specimen labeled as paratype is not designated in the original description: 1 \circlearrowleft 'Trus Madi Mts. / near Keningau / Saba MALAYSIA / 1993. iv. 17–30. // F //Paratype: / Mimela / suspecta / Y. MIYAKE, 1994'.

Genus Popillia

Popillia iwasei Miyake

Popillia iwasei Miyake, 1996: 43-44.

Note. The following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Paratypes. 6 exs.: 2 ♀ 'Puncak, Palopo / Centr. CELEBES / 1989. I / INDONESIA // Paratype: / Popillia / iwasei / Y. MIYAKE, 1996'. 2 ♀ 'Puncak Palopo / C. Sulawesi / 1. 1989 // Paratype: / Popillia / iwasei / Y. MIYAKE, 1996'. 1 ♀ 'Puncak Palopo / C. Sulawesi / 1989. V / INDONESIA // SI [yellow label] // Paratype: / Popillia / iwasei / Y. MIYAKE, 1996'. [[1 ♂ 'Palolo (the locality given in the original description is Palopo) / II. 1991 (the date given in the original description and Telnov and Zorn (2019) are I. 1989) // Paratype: / Popillia / iwasei / Y. MIYAKE, 1996']].

Current status. Valid species.

Genus Spilopopillia

Spilopopillia rugosa Miyake

Spilopopillia rugosa Miyake, 1989a: 180-181.

Note. The following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Paratypes. 18 exs.: [[1 ex. '[Malaya] / Fraser's Hill / 29–III–1977 (the date given in the original description is 28. III. 1977) / Y. Miyake leg. // Paratype: / Spilopopillia / rugosa / Y. MIYAKE, 1989']]. [[1 ex. '[Malaya] / Freaser's Hill (the locality given in the original description is Fraser's Hill) / 30–III–1977 (the date given in the original description is 28. III. 1977) / Y. Miyake leg. // Paratype: / Spilopopillia / rugosa / Y. MIYAKE, 1989']]. 6 exs. '[Malaya] / Tanah Rata / 30–III–1974 / Y, Miyake leg // Paratype: / Spilopopillia / rugosa / Y. MIYAKE, 1989'. 9 exs. 'TANARATA / MALAYA / 30 III 1974 / Y. Miyake leg. // Paratype: / Spilopopillia / rugosa / Y. MIYAKE, 1989'. [[1 ex. 'Gentig / Hiland (the locality given in the original description is Genting Highland) MALAYA / 5. IV. 1974 (the date given in the original description is 5. IV. 1975) / Y Miyake leg. // Paratype: / Spilopopillia / rugosa / Y. MIYAKE, 1989']].

Current status. Valid species.

Remark. In addition to the paratypes mentioned above, the following specimens labeled as paratypes are not designated in the original description: 8 exs. 'Tanah Rata / MALAYA / 1. III. 1977 / Y. Miyake // Paratype: / Spilopopillia / rugosa / Y. MIYAKE, 1989'. 5 exs. 'TANARATA / MALAYA / 28, 29, 30 III 1974 / Y. Miyake leg. // Paratype: / Spilopopillia / rugosa / Y. MIYAKE, 1989'. 1 ex. '84. IV // Paratype: / Spilopopillia / rugosa / Y. MIYAKE, 1989'. 2 exs. 'Paratype: / Spilopopillia / rugosa / Y. MIYAKE, 1989'.

Genus Spinanomala

Spinanomala moritai Miyake

Figure 2D

Spinanomala moritai Miyake, 1996: 38.

Note. The holotype and following paratypes are deposited in RIEB (ex coll. Y. Miyake): Holotype (3). 'Tanah Rata / MALAYA / IV. 1984 / M. Hata // Holotype: / Spinanomala / moritai / Y. MIYAKE, 1996'. (Fig. 2D)

Paratypes. 11 exs.: 1 ex. 'Tanah Rata / MALAYA / I–II. 1973 / MORITA, Kozo // Paratype: Spinanomala / moritai / Y. MIYAKE, 1996'. 2 ♂, 3 ♀ 'Tanah Rata / MALAYA / 1. III. 1977 / Y. Miyake // Paratype: Spinanomala / moritai / Y. MIYAKE, 1996'. 3 ♂, 2 ♀ 'Tanah Rata / MALAYA / IV. 1984 / M. Hata // Paratype: Spinanomala / moritai / Y. MIYAKE, 1996'.

Type condition. The aedeagus of the holotype is pinned separately and the right metaleg is missing.

Current status. Valid species.

Remark. The collecting data of the specimen labelled as the holotype do not match the original description. There are two male paratypes ('Tanah Rata / MALAYA / 1. III. 1977 / Y. Miyake // Paratype: Spinanomala / moritai / Y. MIYAKE, 1996') that match the holotype data.

In addition to the paratypes mentioned above, the following specimen labeled as the paratype is not designated in the original description: 1 ex. '7V-U-U=U=U=U=U furêzâhiru / MALAYA / 4 – 6. IV. 1977 / M. Hata // Paratype: Spinanomala / moritai / Y. MI-YAKE, 1996'.

Subfamily Dynastinae Genus *Papuana*

Papuana timorensis Miyake & Yamaya

Papuana timorensis Miyake & Yamaya, 1999: 103-104.

Note. The following paratype is deposited in RIEB (ex coll. Y. Miyake):

Paratype. 1 ex.: 1 ♂ 'Timor Is. / Indonesia / V. 1993 / Native Coll. // Timor / Is. [aedeagus mount] // Paratype: / Papuana / timorensis YAMAYA / Y. MIYAKE, 1999'. Current status. Valid species.

Genus Peltonotus

Peltonotus morio Burmeister

Figure 2E

Peltonotus morio Burmeister, 1847: 75.

Note. The neotype is deposited in RIEB (ex coll. K. Wada):

Neotype (a). 'NEPAL • HIMALAYA / 10. 5. 1993 Chhachok Madi– / Khola/Gandaki (Kaski– / Destr.) 1300m lg: D. Ahrens //Peltonotus / morio Burn. / det: D. Ahrens 1997 // Neotype / Peltonotus / morio Burmeister, 1847 / Jameson and Wada, 2004'. (Fig. 2E)

Type condition. The aedeagus of the neotype is pinned separately.

Current status. Valid species.

Remark. The neotype was designated by Jameson and Wada (2004).

Peltonotus morio sawaii Miyake

Figure 2F

Peltonotus morio sawaii Miyake, 2000: 112-113.

Note. The holotype and the following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Holotype (3). 'Doi Suthep / Chieng Mai / N-THAILAND/ 22. V. 1983 / leg. M. Sawai // 12 // P. morio / Burmi. [white label, front] // Cameron / Highland / Pahang [white label, back] // Holotype: Peltonotus / morio sawaii / Y. MIYAKE, 2000'. (Fig. 2F)

Paratypes. 4 exs.: 2 ♂, 1 ♀ 'Doi Suthep / Chieng Mai / N–THAILAND / 22. V. 1983 / leg. M. Sawai // Paratype: Peltonotus / morio sawaii / Y. MIYAKE, 2000 // P. morio /Burmeister'. 1 ♀ 'Doi Suthep / Chieng Mai / N–THAILAND / 22. V. 1983 / leg. M. Sawai // Paratype: Peltonotus / morio sawaii / Y. MIYAKE, 2000'.

Type condition. The aedeagus of the holotype is pinned separately.

Current status. Junior subjective synonym of *Peltonotus morio* Burmeister, 1847, see Krell and Bezděk (2016).

Peltonotus podocrassus Jameson & Wada

Peltonotus podocrassus Jameson & Wada, 2004: 34-37.

Note. The following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Paratypes. 7 exs.: 2 exs. '[Malaya] / Tanah Rata / 30–III–1976 / Y. Miyake leg. // Paratype: Peltonotus peninsularis / Y. MIYAKE, 2000 // Paratype / Peltonotus podocrassus / Jameson and Wada, 2004'. 1 & '39 miles from / Tapah, Malaya / 30–III–1976 / Y. Miyake leg. // Paratype: Peltonotus peninsularis / Y. MIYAKE, 2000 // Paratype / Peltonotus podocrassus / Jameson and Wada, 2004'. 1 & 'TANARATA / MALAYA / 30. III. 1976 / Y. Miyake leg. // Paratype: Peltonotus peninsularis / Y. MIYAKE, 2000 // Paratype / Peltonotus podocrassus / Jameson and Wada, 2004'. 1 & 'V. RC. H.) Malaya / 21. III. 1978 // 46 // Paratype: Peltonotus peninsularis / Y. MIYAKE, 2000 // Paratype / Peltonotus podocrassus / Jameson and Wada, 2004'. 1 ex. [Malaya] / Tanah Rata / 1–IV–1984 / Y. Miyake leg. // Paratype: Peltonotus peninsularis / Y. MIYAKE, 2000 // Paratype / Peltonotus podocrassus / Jameson and Wada, 2004'. 1 ex. 'TANARATA / MALAYA / 1. IV. 1984 / Y. Miyake // Paratype: Peltonotus peninsularis / Y. MIYAKE, 2000 // Paratype / Peltonotus podocrassus / Jameson and Wada, 2004'. 1 ex. 'TANARATA / MALAYA / 1. IV. 1984 / Y. Miyake // Paratype: Peltonotus peninsularis / Y. MIYAKE, 2000 // Paratype / Peltonotus podocrassus / Jameson and Wada, 2004'.

Current status. Valid species.

Peltonotus sakaii Miyake & Yamaya

Peltonotus sakaii Miyake & Yamaya, 1994: 39-40, 42.

Note. The following paratype is deposited in RIEB (ex coll. Y. Miyake):

Paratype. 1 ex.: 'Mt. Serapi / SARAWAKU / 1991/III. // 20 // Paratype: / Peltonotus sakaii / Y. MIYAKE et YAMAYA, 1994 // Peltonotus / similis Arrow, 1931 / det. Kaoru Wada, 2004'.

Current status. Junior subjective synonym of *Peltonotus similis* Arrow, 1931, see Krajcik (2012).

Remark. In addition to the paratypes mentioned above, the following specimens labeled as paratypes are not designated in the original description: 1 & 'Mt. Serapi / Kuching, Sarawak / IX. 1990 / BORNEO // Paratype: / Peltonotus sakaii / Y. MI-YAKE et YAMAYA, 1994 // Peltonotus / similis Arrow, 1931 / det. Kaoru Wada, 2004'. 1 ex. 'Lembah Anai / W. Sumatra / VI. 1990 / INDONESIA // [yellow label] // Paratype: / Peltonotus sakaii / Y. MIYAKE et YAMAYA, 1994 // Peltonotus / similis Arrow, 1931 / det. Kaoru Wada, 2004'. 1 & 'Kimanis Road / Near Keningau / N. Borneo / 3–V–1994 // Paratype: / Peltonotus sakaii / Y. MIYAKE et YAMAYA, 1994 // Peltonotus / similis Arrow, 1931 / det. Kaoru Wada, 2004'. 2 exs. 'Kimanis Road / Near Keningau / N. Borneo / 3–V–1994 // Paratype: / Peltonotus sakaii / Y. MIYAKE et YAMAYA, 1994 // Peltonotus / similis Arrow, 1931 / det. Kaoru Wada, 2004'.

Peltonotus sulawesiensis Wada

Peltonotus sulawesiensis Wada, 1990: 1-2.

Note. The following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Paratypes. 4 exs.: 'Tondano N. Celebes / INDONESIA / V 1988 / leg. N. Nisi-kawa // PARATYPE / Peltonotus sulawesiensis / Kaoru WADA, 1990'.

Current status. Junior subjective synonym of *Neohyphus celebesus* Heller, 1896, see Kuijten (1994).

Subfamily Melolonthinae Genus *Amiserica*

Amiserica rufidula Nomura

Amiserica rufidula Nomura, 1974: 84.

Note. The following paratypes are deposited in RIEB (ex coll. S. Nomura):

Paratypes. 2 exs.: 1 \circlearrowleft 'Li-shan / Taiwan / 29. VII. 1974 / Y. Miyake // \circlearrowleft // PARA-TYPE / Amiserica / rufidula / NOMURA (1974)'. 1 \circlearrowleft 'Li-shan / Taiwan / 1. VIII. 1974 / Y. Miyake // \circlearrowleft // PARATYPE / Amiserica / rufidula / NOMURA (1974)'.

Current status. Valid species.

Genus Apogonia

Apogonia fujiokai Miyake & Yamaya

Apogonia fujiokai Miyake & Yamaya, 1997: 6–7.

Note. The following paratype is deposited in RIEB (ex coll. Y. Miyake):

Paratype. 1 ex.: 'Flores Is. / Indonesia / May. 1995 // Y // Paratype: / Apogonia fujiokai / Y. MIYAKE et YAMAYA, 1997'.

Current status. Valid species.

Apogonia fusciventris Miyake & Yamaya

Apogonia fusciventris Miyake & Yamaya, 1997: 5-6.

Note. The following paratype is deposited in RIEB (ex coll. Y. Miyake):

Paratype. 1 ex.: 'Vangvieng / P. Vietiane / LAO. P. D. R. / 25–26. MAY. 1994. / K. Miura–leg. // Y // Paratype: Apogonia / fuscoventris / Y. MIYAKE et YAMAYA, 1997'.

Current status. Junior subjective synonym of of *Apogonia striatipennis* Frey, 1971, see Kobayashi (2010).

Remark. The species name on the paratype label is 'fuscoventris', which is invalid. Probably, the name was confused with fusciventris by Y. Miyake.

Apogonia hongkongica Miyake

Apogonia hongkongica Miyake, 1989b: 38–39.

Note. The following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Paratypes. 11 exs.: 1 3 'Hong Kong / China / C. K. Yu / 1974. V. [white label, front] // Native Collector / legt. [white label, back] // Paratype: / Apogonia / hongkongica / Y. MIYAKE, 1989'. 1 & 'Hong Kong / China / V. 1974 / C. K. Yu [white label, front] // Legt. / Native / Collector [white label, back] // Paratype: / Apogonia / hongkongica / Y. MIYAKE, 1989'. 1 3 'Hong Kong / China / V. 1974 / C. K. Yu [white label, front] // Native Collector [white label, back] // Paratype: / Apogonia / hongkongica / Y. MIYAKE, 1989'. 1 \(\text{ '} \quad \text{// Hong Kong / China / V. 1974 / C. K. Yu [white label, front]} \) // Legt. / Native / Collector // Paratype: / Apogonia / hongkongica / Y. MIYAKE, 1989'. 1 ♀ '♀ // Hong Kong / China / V. 1974 / C. K. Yu [white label, front] // Native / Collector / legt. // Paratype: / Apogonia / hongkongica / Y. MIYAKE, 1989'. 1 🗣 'Hong Kong / 1974 / From C. K. Yu ♀ // Paratype: / Apogonia / hongkongica / Y. MIYAKE, 1989'. 1 ex. 'Hong Kong / China / V. 1974 / C. K. Yu [white label, front] // Legt. / native / Collector [white label, back] // Paratype: / Apogonia / hongkongica / Y. MIYAKE, 1989'. 2 exs. 'Hang Kong / China / V. 1974 / C. K. Yu Col [white label, front] // Native / Collector / legt. // Paratype: / Apogonia / hongkongica / Y. MIYAKE, 1989'. 2 exs. 'Hong Kong / V. 1974 / From C. K. Yu // Paratype: / Apogonia / hongkongica / Y. MIYAKE, 1989'.

Current status. Valid species.

Remark. In addition to the paratypes mentioned above, the following specimens labeled as paratypes are not designated in the original description: 1ex. 'Hong Kong / 1975 / From. C. K-Yu // Paratype: Apogonia / hongkongica / Y. MIYAKE, 1989'.

1 ♀ 'Hong Kong / ♀ 1975 [white label, front] // from / C. K. Yu [white label, back] // Paratype: / Apogonia / hongkongica / Y. MIYAKE, 1989'.

Apogonia inconstans Kobayashi & Bezděk

Apogonia inconstans Kobayashi & Bezděk, 2011: 64-65.

Note. The following paratypes are deposited in RIEB (ex coll. A. Bezděk):

Paratypes. 4 exs.: 1 & '1985. 5. 18–19. / Wieng Ko Sai Nat. / Park, Phrae Prov., / N-Thailand / Col. S. Ohmomo [white label, front] // 5/18 夜= yoru [white label, back] // PARATYPE / Apogonia / inconstans / Kobayashi et Bezděk, 2011'. 1 ex. '1985. 5. 18–19. / Wieng Ko Sai Nat. / Park, Phrae Prov., / N-Thailand / Col. S. Ohmomo [white label, front] // 5/18 夜= yoru [white label, back] // PARATYPE / Apogonia / inconstans / Kobayashi et Bezděk, 2011'. 1 ex. '1985. 5. 18–19. / Wieng Ko Sai Nat. / Park, Phrae Prov., / N-Thailand / Col. S. Ohmomo [white label, front] // 夜= yoru 5/18 [white label, back] // PARATYPE / Apogonia / inconstans / Kobayashi et Bezděk, 2011'. 1 ex. '1985. 5. 18–19. / Wieng Ko Sai Nat. / Park, Phrae Prov., / N-Thailand / Col. S. Ohmomo [white label, front] // night [white label, back] // PARATYPE / Apogonia / inconstans / Kobayashi et Bezděk, 2011'.

Current status. Valid species.

Apogonia ohmomoi Miyake

Figure 2G

Apogonia ohmomoi Miyake, 1989: 177-178.

Note. The holotype is deposited in RIEB (ex coll. Y. Miyake):

Holotype (♂). '1985. 5. 18–19. / Wieng Ko Sai Nat. / Park, Phrae Prov., / N–Thailand / Col. S. Ohmomo [white label, front] // 夜= yoru 5/18 [white label, back] // 14 // Holotype: / Apogonia / scabra / Y. MIYAKE // Apogonia ohmomoi / Miyake, 1989 / HOLOTYPUS, ♂ / A. Bezděk det. 2011'. (Fig. 2G)

Type condition. The aedeagus of the holotype is pinned separately, and the right antenna, right and left protarsus, right mesoclaw, left mesotarsus, right metatarsus and mesonotum are missing.

Current status. Valid species.

Remark. The label 'Apogonia scabra' was apparently accidentally put by Miyake.

Apogonia ovata Miyake & Yamaguchi

Figure 2H

Apogonia ovata Miyake & Yamaguchi, 1998: 25–27.

Note. The holotype is deposited in RIEB (ex coll. Y. Miyake):

Holotype (3). 'Kaeng Tana / Khong Chiam / Ubonratchathani / [NE-THAI-LAND] / 29. Aug. 1997 / S. Yamaguchi leg. // Holotype / *Apogonia ovata* / Y. MI-YAKE et YAMAGUCHI 1998'. (Fig. 2H)

Type condition. The aedeagus of the holotype is pinned separately. **Current status.** Senior synonym of *Apogonia miyakei* Bezděk, 2004, see Bezděk (2004).

Apogonia terminalis Miyake, Yamaguchi & Akiyama Figure 3A

Apogonia terminalis Miyake, Yamaguchi & Akiyama, 2002: 56-58.

Note. The holotype and following paratypes are deposited in RIEB (ex coll. Y. Miyake): Holotype (3). 'Don Far Huan (light) / Ubon Ratchathani / E-THAILAND / 17. Sep. 1999 / S. Yamaguchi & / M. Akiyama leg. // Holotype / *Apogonia terminalis* / Y. MIYAKE, YAMAGUCHI / et AKIYAMA 2002'. (Fig. 3A)

Paratypes. 4exs.: 1 ♂ 'Ban Lao Kram / Mukdahan (light) / NE-THAILAND / 5. Sep. 1999 / S. Yamaguchi & / M. Akiyama leg. // Paratype / *Apogonia terminalis* / Y. MIYAKE, YAMAGUCHI / et AKIYAMA 2002'. 3 ♀ 'Don Far Huan (light) / Ubon Ratchathani / E-TAILAND / 17. Sep. 1999 / S. Yamaguchi & / M. Akiyama leg. // ♀ // Paratype / *Apogonia terminalis* / Y. MIYAKE, YAMAGUCHI / et AKIYAMA 2002'.

Type condition. The aedeagus of the holotype is pinned separately, and the left proclaw, right and left mesotarsus, right metaclaw and left metatarsus are missing.

Current status. Valid species.

Apogonia unidentata Miyake, Yamaguchi & Akiyama Figure 3B

Apogonia unidentata Miyake, Yamaguchi & Akiyama, 2002: 55–56.

Note. The holotype and following paratypes are deposited in RIEB (ex coll. Miyake): Holotype (3). 'Ban Lao Kram / Mukdahan (light) / NE-THAILAND / 5. Sep. 1999 / S. Yamaguchi & / M. Akiyama leg. // Holotype / Apogonia / unidentata // Holotype / Apogonia unidentata / Y. MIYAKE, YAMAGUCHI / et AKIYAMA 2002'. (Fig. 3B)

Paratypes. 6 exs.: 4exs. 'Ban Lao Kram / Mukudahan (light) / NE-THAILAND / 5. Sep. 1999 / S. Yamaguchi & / M. Akiyama leg. // Paratype / *Apogonia unidentata* / Y. MIYAKE, YAMAGUCHI / et AKIYAMA 2002'. 1 ex. 'Ban Lao Kram / Mukudahan (light) / NE-THAILAND / 5. Sep. 1999 / S. Yamaguchi & / M. Akiyama leg. // 63 // Paratype / *Apogonia unidentata* / Y. MIYAKE, YAMAGUCHI / et AKIYAMA 2002'. 1 ex. 'Ban Lao Kram / Mukudahan (light) / NE-THAILAND / 14. Sep. 1999 / S.

Yamaguchi & / M. Akiyama leg. / シミレア= shimirea // Paratype / Apogonia unidentata / Y. MIYAKE, YAMAGUCHI / et AKIYAMA 2002'.

Type condition. The aedeagus of the holotype is pinned separately, and the right protarsus and right and left metatarsi are missing.

Current status. Valid species.

Genus Dichelomorpha

Dichelomorpha sublineata Miyake

Figure 3C

Dichelomorpha sublineata Miyake, 1994: 140-141.

Note. The holotype and following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Holotype (3). 'Is. Tioman, east of / Malay Pennisular March. 1993, nat, col // 1 [aedeagus mount] // Holotype: / Dichelomorpha / sublineata / Y. MIYAKE, 1994'. (Fig. 3C)

Paratypes. 34 exs.: 10 & 'Is. Tioman, east of / Malay Pennisular / March. 1993. nat, col // Paratype: / Dichelomorpha / sublineata / Y. MIYAKE, 1994'. 14 exs. 'Is. Tioman, east of / Malay Pennisular / March. 1993. nat, col // Paratype: / Dichelomorpha / sublineata / Y. MIYAKE, 1994'. 1 & 'Is. Tioman, east of / Malay Pennisular / March. 1993. nat, col // 11 // Paratype: / Dichelomorpha / sublineata / Y. MIYAKE, 1994'. 1 ex. 'Is. Tioman, east of / Malay Pennisular / March. 1993. nat, col // 4 // Paratype: / Dichelomorpha / sublineata / Y. MIYAKE, 1994'. [[8 exs. 'Tioman Is. / E. of Malaya / III–1933 (the date given in the original description is III–1993), W. // Paratype: / Dichelomorpha / sublineata / Y. MIYAKE, 1994']].

Type condition. The aedeagus of the holotype is pinned separately. The right mesotarsus is missing.

Current status. Valid species.

Remark. Miyake (1994) did not provide a photograph of the holotype. Apparently he provided a photograph of a paratype, but we could not trace that specimen.

Genus Holomelia

Holomelia gigantea Miyake

Figure 3D

Holomelia gigantea Miyake, 1996: 35-36.

Note. The holotype and following paratypes are deposited in RIEB (ex coll. Y. Miyake).

Holotype (3). '19 miles from / Tapah, Malaya / 1–II–1974 / Y. Miyake leg [white label, front] // Wu TET KONG / legt. [white label, back] // 29 • 5 // 家= ie [aedeagus mount] // Holotype: / Holomelia / gigantea / Y. MIYAKE, 1996'. (Fig. 3D)

Paratypes. 2 exs.: 1 & 'Cameron H. / MALAYA / Jan–Feb 1974 / Y. Miyake leg. // 30.5 // Paratype: / Holomelia gigantea / Y. MIYAKE, 1996 // 19 miles from / Tapah, Malaya / 1–II–1974 [white label, front] // Wu Tet Kong legt. [white label, back]'. 1 ex. '19 miles from / Tapah, Malaya / 1–II–1974 [white label, front] // Wu Tet Kong legt. [white label, back] // Paratype: / Holomelia gigantea / Y. MIYAKE, 1996'.

Type condition. The aedeagus of the holotype is pinned separately.

Current status. Valid species.

Remark. Miyake (1996) did not provide a photograph of the holotype. Apparently he provided a photograph of a paratype, but we could not trace that specimen.

Genus Holotrichia

Holotrichia loochooana umebayashii Miyake

Figure 3E

Holotrichia loochooana umebayashii Miyake, 1986a: 1-2.

Note. The holotype is deposited in RIEB (ex coll. Y. Miyake):

Holotype (3). [Loo-Choo] Okinoerabuzima / 21. IV. 1957. / K. Umebayashi // 7 [white label, mounted on a part of tarsus] // HOLOTYPE / Holotrichia / loochooana / umebayashii / Y. MIYAKE, 1986'. (Fig. 3E)

Type condition. The aedeagus of the holotype is pinned separately. The left protarsus and the right and left metatarsus are missing.

Current status. Junior subjective synonym of *Nigrotrichia loochooana okinawana* (Nomura, 1964), see Matsumoto (2016).

Remark. The collecting date in the original description is 1.V.1957, which disagrees with the label data.

Holotrichia yamayai Miyake & Yamaguchi

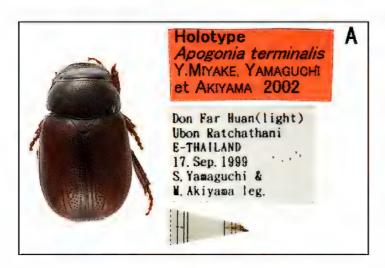
Figure 3F

Holotrichia yamayai Miyake & Yamaguchi, 1998: 27-28.

Note. The holotype and following paratype are deposited in RIEB (ex coll. Y. Miyake): **Holotype** (3). 'North Thailand / Chiangmai-Saraphee / 15th, June, 1996 / Native collector // Holotype / *Holotricchia yamayai* / Y. MIYAKE et YAMAGUCHI 1998'. (Fig. 3F)

Paratype. 1 ex.: 1 ♀ 'Kaeng Tana / Khong Chiam / Ubonratohathani / [NE-THAILAND] / 27. Aug. 1997 / S. Yamaguchi leg. // Paratype / Holotrichia yamayai / Y. MIYAKE et YAMAGUCHI 1998'.

Type condition. The aedeagus of the holotype is pinned separately. **Current status.** Valid species.















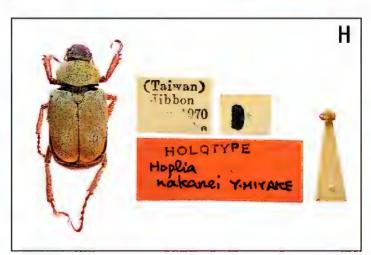


Figure 3. Habitus of holotype specimens. **A** *Apogonia terminalis* Miyake, Yamagushi et Akiyama **B** *Apogonia unidentata* Miyake, Yamaguchi et Akiyama **C** *Dichelomorpha sublineata* Miyake **D** *Holomelia gigantea* Miyake **E** *Holotrichia loochooana umebayashii* Miyake **F** *Holotrichia yamayai* Miyake et Yamaguchi **G** *Hoplia choui* Miyake **H** *Hoplia nakanei* Miyake.

Genus Hoplia

Hoplia choui Miyake

Figure 3G

Hoplia choui Miyake, 1986b: 203-204.

Note. The holotype is deposited in RIEB (ex coll. Y. Miyake):

Holotype (3). 'Sozan / Formosa / 26. V. 1940 / Coll. M. Uno // HOLOTYPE / Hoplia / Choui Y. MIYAKE / 1986'. (Fig. 3G)

Type condition. Abdomen only.

Current status. Valid species.

Remark. Most part of the holotype specimen was destroyed by *Anthrenus verbasci*.

Hoplia nakanei Miyake

Figure 3H

Hoplia nakanei Miyake, 1986b: 207.

Note. The holotype and following paratypes are deposited in RIEB (ex coll. Y. Miyake): **Holotype** (3). '(Taiwan) / Jibbon / 2. iv. 1970 / Y. Miyake // 1 // HOLOTYPE / Hoplia / nakanei Y. MIYAKE'. (Fig. 3H)

Paratypes. 29 exs.: 4 exs. '[Taiwan] / 六亀= liugui. 石山= shi shan / 9-VI-1976 / Y. Miyake leg. // Paratype / Hoplia / nakanei / Y. Miyake, 1986'. 5 exs. '[Taiwan] / Liukuei 石山= shi shan / 9-VI-1976 / Y. Miyake leg. // Paratype / Hoplia / nakanei / Y. Miyake, 1986'. 1 ex. '[Taiwan] / 六亀= liugui. 石山= shi shan / 9-VI-1976 / 陳文竜= chen wenzhao leg. // Paratype / Hoplia nakanei / Y. Miyake, 1986'. 4 exs. '[Taiwan] / Baibara / -V-1963 / T. Shirozu leg. // Paratype / Hoplia / nakanei / Y. Miyake, 1986'. 1 ex. '[Taiwan] / Baibara / -V-1963 / Shirozu leg. // Paratype / Hoplia / nakanei / Y. Miyake, 1986'. 1 ex. '[Taiwan] / Baibara / -V-1963 / T. Shirozu // Paratype: Hoplia / nakanei Y. Miyake, 1986'. 1 ♂ '六亀= liugui. 石山= shi shan / alt. 2000 m / 9. VI. 1976 // Paratype: / Hoplia / nakanei / Y. MIYAKE, 1986'. 1 ex. 'FENCHIFO / FORMOSA / 24. V. 1975 / K. MATSUDA // Paratype: / Hoplia nakanei / Y. MIYAKE, 1986'. 1 ex. 'Swakang / Taiwan / 15. VI. 1970 / Fukuda // Paratype: / Hoplia nakanei / 1986. Y. MIYAKE'. 1 ex. 'NANSHANCHI / TAIWAN / 1. IV. 1970 / H. NOMURA // PARATYPE / Hoplia / nakanei / Y. MIYAKE, 1986'. [[4 exs. '[Taiwan] / Baibara / V. 1965 (the date given in the original description is V. 1963) / T. Shirozu // Paratype / Hoplia nakanei / Y. Miyake']]. [[2 exs. '[Taiwan] / Baibara / V. 1965 (the date given in the original description is V. 1963) / T. Shirozu // Paratype / Hoplia nakanei / Y. Miyake, 1986']]. [[1 👌 '[Taiwan] / Baibara / V. 1965 (the date given in the original description is V. 1963) / Col. T. Shirozu // Paratype / Hoplia nakanei / Y. Miyake, 1986']]. [[1 ex. '[Taiwan

] / Baibara / V. 1965 (the date given in the original description is V. 1963) / Col. T. Shirozu // Paratype / Hoplia nakanei / Y. Miyake, 1986']]. [[1 ex. '[Taiwan] / Baibara / V. 1965 (the date given in the original description is V. 1963) / Col. T. Shirozu // Paratype / Hoplia nakanei / 1986. Y. Miyake']].

Type condition. The aedeagus of the holotype is pinned separately.

Current status. Valid species.

Remark. The label data the holotype do not match the original description. There is one male paratype ('六亀= liugui. 石山= shi shan / alt. 2000 m / 9. VI. 1976 // Paratype: / Hoplia / nakanei / Y. MIYAKE, 1986') that agrees with the data of the holotype. Probably the type labels were mixed up and this specimen should be considered the holotype.

In addition to the paratypes listed above, the following specimens labeled as paratypes are not designated in the original description: 1 ex. '[Taiwan] / Liukuei / –V–1963 / T. Shirozu col. // Paratype / Hoplia / nakanei / Y. Miyake, 1986'. 1 ex. 'APR II. 1971 / 榮華= ronghua / B-S. CHANG // PARATYPE / Hoplia / nakanei / Y. MI-YAKE, 1986'. 1 ex. 'Paratype / Hoplia nakanei / Y. MIYAKE, 1986'.

Hoplia nengkaoshana Miyake

Hoplia nengkaoshana Miyake, 1986b: 211.

Note. The allotype and following paratypes are deposited in RIEB (ex coll. Y. Miyake): **Allotype** (♀). 'Allotype // mt. Noko (2650 m) / V. 20–VI. 2, 1966 // 1 // PARA-TYPE / Hoplia / nengkaoshana / Y. MIYAKE, 1986'.

Paratypes. 3ex.: 1 ♂ 'mt. Nōhō / C-Formosa / V-20 ~ Vi-21 1966 // PARATYPE / Hoplia / nengkaoshana / Y. MIYAKE, 1986'. 1 ♂ 'MT. HÔFAN / FORMOSA / 5-V. 73 / T. OCHI // 1 // PARATYPE / Hoplia / nengkaoshana / Y. MIYAKE, 1986 // Hoplia / inornata / H. Kobayashi, 1990 / Det. H. Kobayashi, 2015'. 1 ex. 'JUL. 16. 1966 / 合欢山= hehuan shan / B. S. Chang // PARATYPE / nengkaoshana / Y. MIYAKE, 1986 // Hoplia / inornata / H. Kobayashi, 1990 / Det. H. Kobayashi, 2015'.

Current status. Valid species.

Remark. In addition to the paratypes mentioned above, the following specimens labeled as paratypes are not designated in the original description: 1 ex. '台中= tai chung 和平郷= heping xiang 早等村= zaodeng cun / 横貫公路= hengguan gonglu. 梨山站= lishan zhan / 海抜= kaibatsu 1679–2196 m. / 13–16. V. 1958. 陶家駒= tao jiayu // PARATYPE / Hoplia / nengkaoshana / Y. MIYAKE, 1986'. 1 ex. 'AUG 13. 1970 / 新坡= xinpo / B-S. CHANG // PARATYPE / Hoplia / nengkaoshana / Y. MIYAKE, 1986'.

Hoplia simillima Miyake

Figure 4A

Hoplia simillima Miyake, 1986b: 206-207.

Note. The holotype and following paratypes are deposited in RIEB (ex coll. Y. Miyake): Holotype (分). '[Taiwan] / Liukuei 石山= shi shan / 9–VI–1979 / Y. Miyake leg. // HOLOTYPE / Hoplia / simillima / Y. MIYAKE, 1986'. (Fig. 4A)

Paratypes. 5 exs.: 3 exs. '(FORMOSA) / Baibara / -V-1969 // Paratype / Hoplia / simillima / 1989, Y. Miyake'. 2 exs. '(FORMOSA) / Baibara / -V-1969 / T. Shirozu // Paratype / Hoplia / simillima / 1989, Y. Miyake'.

Current status. Valid species.

Remark. In addition to the paratypes mentioned above, the following specimens labeled as paratypes are not designated in the original description: 1 ex. '[Taiwan] / Liukuei 石山= shi shan / 9–VI–1979 / Y. Miyake leg. // Paratype / Hoplia / simillima / 1989, Y. Miyake'. 1 ♂ '石= ishi // [Taiwan] / 六亀= liugui 石山= shi shan / 9–VI–1976 / Y. Miyake leg. // Paratype / Hoplia / simillima / 1989, Y. Miyake'. 1 ex. '(FORMO-SA) / Mt. Ali / 14 V 1968 / Y. HAYASHI // Paratype'.

Hoplia taiwana Miyake

Figure 4B

Hoplia taiwana Miyake, 1986b: 204.

Note. The holotype and following paratypes are deposited in RIEB (ex coll. Y. Miyake): **Holotype** (3). 'HOLOTYPE / Hoplia / Taiwana Y. MIYAKE / 1986'. (Fig. 4B)

Paratypes. 9 exs.: 1 ex. 'NANSHANCHI / TAIWAN / 3. IV. 1970 / H. NOMURA // PARATYPE / Hoplia taiwana / Y. MIYAKE, 1986'. 1 ex. 'NANSHANCHI / TAIWAN / 4. IV. 1970 / H. NOMURA // PARATYPE / Hoplia taiwana / Y. MIYAKE, 1986'. 1 ex. 'NANSHANCHI / TAIWAN / 5. IV. 1970 / Y. KIYOYAMA // PARATYPE / Hoplia taiwana / Y. MIYAKE, 1986'. 1 ex. 'SUNGKANG / FORMOSA / 29. VI. 1971 / Y. MAEDA // PARATYPE / Hoplia taiwana / Y. MIYAKE, 1986'. 1 ex. 'NANSHANCHI / TAIWAN / 31. III. 1981 / Y. YAMAMOTO // Paratype / Hoplia / taiwana / Y. MIYAKE, 1986'. 1 ex. 'NANSHANCHI / TAIWAN / 1. IV. 1981 / F. KIMURA // Paratype / Hoplia / taiwana Y. MIYAKE / (1968)'. 1 ex. 'NANSHANCHI / TAIWAN / 2. IV. 1981 / F. KIMURA // Paratype / Hoplia taiwana / Y. MIYAKE'. 1 ex. 'NANSHANCHI / TAIWAN / 3. IV. 1981 / Y. YAMAMOTO // PARATYPE / Hoplia taiwana / Y. MIYAKE, 1986'.

Current status. Valid species.

Remark. The locality label data of the holotype are missing but the specimen agrees with the original description.

In addition to the paratypes mentioned above, the following specimens labeled as paratypes were not designated in the original description: 3 exs. '[Taiwan] / Liukuei 石山= shi shan / 9–VI–1976 / Y. Miyake leg. // PARATYPE / Hoplia / taiwana / Y. MIYAKE, 1986'. 1 ex. '[Taiwan] / 六亀= liugui 石山= shi shan / 9–VI–1976 / Y. Miyake leg. // PARATYPE

/ Hoplia / taiwana / Y. MIYAKE, 1986'. 2 exs. 'Mt. YUSHAN / TAIWAN / 8. VI. 1980 / M. YAMAMOTO // Paratype / Hoplia / taiwana Y. MIYAKE'. 4 exs. 'TAIWAN / 陽明山= mt. yangmingshan / 20. IV. 1956 / COL. K. S. LIN // Paratype / Hoplia / taiwana / Y. MIYAKE, 1986'. 1 ex. 'LUSHAN / FORMOSA / 13—IV. 74 / S. TAKEDA // PARATYPE / Hoplia / taiwana / Y. MIYAKE, 1986'. 1 ex. '榮華= ronghua / APR. 7. 1971 / BS, CHANG // PARATYPE / Hoplia taiwana / Y. MIYAKE, 1986'. 1 ex. '[Taiwana] / Baibara / -V-1965 / T. Shirozu leg. // Paratype: Hoplia / taiwana Y. MIYAKE. 1986'.

Genus Maladera

Maladera hiranoi Miyake

Figure 4C

Maladera hiranoi Miyake, 1986b: 3-5.

Note. The holotype is deposited in RIEB (ex coll. Y. Miyake):

Holotype (♂). '三京= mikyô / 21/VII-82 // HOLOTYPE / Maladera / hiranoi MIYAKE / (1986) // Maladera / impressthorax / hiranoi Y. MIYAKE / DET. Y. MIYAKE, 199 // ムナクボビロウドコガネ= munakubobirôdokogane / *Maladera* (*japoni-ca*-G) / *impressithorax* / Nomura, 1973 / Det. H. Hirasawa 2012'. (Fig. 4C)

Current status. Junior subjective synonym of *Maladera okinoerabuana* Kobayashi, 1978, see Ahrens and Bezděk (2016).

Remark. The date on the collecting data label of the holotype is 21.VII.1982, but the collecting date quoted in the original description is 22.VII.1982. Probably, Miyake made a typographical error when writing the description.

Maladera kobayashii Nomura

Maladera kobayashii Nomura, 1974: 106-107.

Note. The following paratypes are deposited in RIEB (ex coll. S. Nomura):

Paratypes. 2 exs.: 1 ♂ 'Li-shan / Taiwan / 29. VII. 1974 / Y. Miyake // ♂ // PARA-TYPE / Maladera (s. str) / kobayashii / NOMURA (1974)'. 1 ♀ 'Li-shan / Taiwan / 29. VII. 1974 / Y. Miyake // ♀ // PARATYPE / Maladera / kobayashii / NOMURA (1974)'.

Current status. Valid species.

Maladera kusuii Miyake

Figure 4D

Maladera kusuii Miyake, 1986b: 2-3.

Note. The holotype is deposited in RIEB (ex coll. Y. Miyake):

Holotype (♂). '三宅= miyake / コガネムシ上科標準図鑑= koganemushijyôka-hyôjyunzukan / ビロウドコガネ族= birôdokoganezoku / 図鑑使用標本= zukanshiyôhyôhon / 執筆担当= shippitsutantô:平沢 伴明= hirasawa tomoaki / 学研教育出版= gakkenkyôikushuppan (2012) // GAKIYA / Iheya-jima / Aug. 11 1977 / leg. Y Kusui // イヘヤビロウドコガネ= iheyabirôdokogane / Maladera (japonica—G) / kusuii / Y. Miyake, 1986 / Det. H. Hirasawa 2012 // Holotype: / Maladera kusuii / Y. MIYAKE, 1986'.

Type condition. The aedeagus of the holotype is pinned separately. The right and left protarsi, the left mesotarsus, and the right and left metatarsi are missing, but some of the missing parts are pinned separately.

Current status. Valid species.

Maladera lishana Miyake

Maladera lishana Miyake, 1989b: 37-38.

Note. The following paratype is deposited in RIEB (ex coll. Y. Miyake):

Paratype. 1 ex.: 1 ♀ 'Lishan / Taiwan / 28. VII. 1973 / Y. Miyake // Paratype: / Maladera / lishana / Y. MIYAKE, 1989'.

Current status. Valid species.

Maladera nanshanchiana Nomura

Maladera nanshanchiana Nomura, 1974: 111-112.

Note. The following paratypes are deposited in RIEB (ex coll. S. Nomura):

Paratypes. 2 exs.: 1 ex. 'Puli 24 // PARATYPE / Maladera / nanshanchiana / NOMURA (1974)'. 1 ♀ 'Puli 24 // ♀ // PARATYPE / Maladera / nanshanchiana / NOMURA (1974) // ナンザンケイビロウドコガネ= nanzenkeibirodokogane / *Maladera* (*Cephaloserica*) / *nanshanchiana* / Nomura, 1974 / Det. H. Hirasawa 2012'.

Current status. Valid species.

Maladera secreta horaiana Nomura

Maladera secreta horaiana Nomura, 1974: 112.

Note. The following paratype is deposited in RIEB (ex coll. S. Nomura):

Paratype. 1 ex.: 1 ♂ 'Lishan / C. Taiwan / 29. vii. 1973 / Y. Miyake // 三宅= miyake // PARATYPE / Maladera / secreta / horaiana / NOMURA (1974)'.

Current status. Valid species.

Genus Melanomaladera

Melanomaladera yunnana Miyake & Yamaya

Melanomaladera yunnana Miyake & Yamaya, 2001: 38-39.

Note. The following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Paratypes. 2 exs.: 1 & 'China, N W Yunnan / Degen City env. / 3300 m alt. / 29. Jun. 1998 / A. Gorodinsky leg. // 13 // Paratype: / Melanoserica / yunnana'. 1 & 'China, N W Yunnan / Degen City env. / 3300 m alt. / 29. Jun. 1998 / A. Gorodinsky leg. // 13 // Paratype: / Melanoserica / yunnana'.

Current status. Archeohomaloplia yunnana (Miyake et Yamaya, 2001), see Ahrens and Bezděk (2016).

Remark. The genus name on the paratype labels is '*Melanoserica*', which is invalid. Probably, it was confused with '*Melanomaladera*' by Y. Miyake.

Genus Microserica

Microserica (Parvulomaladera) annapurnae Ahrens

Microserica (Parvulomaladera) annapurnae Ahrens, 1995: 46-48.

Note. The following paratype is deposited in RIEB (ex coll. D. Ahrens):

Paratype. 1 ex.: 'NEPAL-HIMALAYA / Annapurna-Mts. / leg. Ahrens 1993 // Pisang bis / Manang, 30. 5. / 3000–3300 m // PARATYPEUS / *Parvulomaladera* / *annapumae sp. n.* / det. D. AHRENS 1994'.

Current status. Oxyserica pygidialis annapurnae (Ahrens, 1995), see Ahrens and Bezděk (2016).

Microserica nitidipyga Nomura

Microserica nitidipyga Nomura, 1974: 99.

Note. The following paratype is deposited in RIEB (ex coll. S. Nomura):

Paratype. 1 ex.: 'Lu-SHAN / FORMOSA / 27. IV. 1973 / K. MATSUDA // 三宅= miyake // Paratype / Microserica / nitidipyga / NOMURA (1974) // Microserica / nitidipyga NOM. / DET. Y. MIYAKE, 1994'.

Current status. Valid species.

Genus Nematophylla

Nematophylla sugiharai Miyake

Figure 4E

Nematophylla sugiharai Miyake, 2000: 106-108.

Note. The holotype is deposited in RIEB (ex coll. Y. Miyake):

Holotype (3). 'Kiau Gap / Mt. Kinabalu / Sabah, Borneo / 1. IV. 2000 / H. SUG-IHARAI leg. // Holotype: Nematophylla / sugiharai / Y. MIYAKE 2000'. (Fig. 4E)

Current status. Junior subjective synonym of *Nematophylla carinicollis* Arrow, 1938, see Krajcik (2012).

Genus Nipponoserica

Nipponoserica pubiventris Nomura

Nipponoserica pubiventris Nomura, 1976b: 189-190.

Note. The following paratype is deposited in RIEB (ex coll. S. Nomura):

Paratype. 1 ex.: 'Takashinohama, / Osaka Pref. / 3. VI. 1974 / Coll. Mitsuo Goto // at light // PARATYPE / Nipponoserica / pubiventris / NOMURA (1976)'.

Current status. Valid species.

Genus Paramaladera

Paramaladera makiharai Nomura

Paramaladera makiharai Nomura, 1974: 101-102.

Note. The following paratypes are deposited in RIEB (ex coll. S. Nomura):

Paratypes. 4 exs.: 4 & 'Li-shan / Taiwan / 29. VII. 1974 / Y. Miyake // & // Paratype / Paramaladera / makiharai / NOMURA (1974)'.

Current status. Valid species.

Genus Pseudohoplia

Pseudohoplia shibatai Miyake

Pseudohoplia shibatai Miyake, 1986b: 201.

Note. The following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Paratypes. 2 exs.: 1 ♂ '(FORMOSA)/ Mt. Ali / 15 V 1968 / Y. HAYASHI // Paratype // Hoplia / shibatai shibatai / Y. Miyake, 1986 / Det. H. Kobayashi, 2015'. 1 ex. '(FORMOSA)/ Mt. Ali / 15 V 1968 / Y. HAYASHI // Paratype // Hoplia / shibatai shibatai / Y. Miyake, 1986 / Det. H. Kobayashi, 2015'.

Current status. Hoplia shibatai shibatai (Miyake, 1986), see Kobayashi (2017).

Remark. In addition to the paratypes mentioned above, the following specimens labeled as paratypes are not designated in the original description: 1 ex. 'Mt. Arishan / Formosa / 1. V. 1973 / K. MATSUDA // Paratype // Paratype / Pseudohoplia / shibatai / Y. Miyake, 1986 // 贈台湾農試= zou-taiwan-noushi'. 1 ♂ 'Houanchi- / Sundchuankang / Nantou Hsien / Taiwan / 25. VI. 1976 / H. Makihara leg. // Paratype // Paratype / Pseudohoplia / shibatai / Y. Miyake, 1986'. 1 ex. 'Mt. Arishan / Formosa / 1. V. 1973 / K. MATSUDA // Paratype / Pseudohoplia / shibatai / Y. Miyake, 1986'. 1 ex. 'MT. ARI / FORMOSA / 1. V. 1973 / K. MATSUDA // Paratype // Pseudohoplia / shibatai / Y. Miyake, 1986'.

Pseudohoplia shibatai makiharai Miyake

Figure 4F

Pseudohoplia shibatai makiharai Miyake, 1986b: 202.

Note. The holotype is deposited in RIEB (ex coll. Y. Miyake):

Holotype (3). 'Mt. Lalashan / Taoyuan Hsien / Taiwan / 21–24. V. 1980 / H. Makihara // HOLOTYPE / Pseudohoplia / shibatai makiharai / Y. MIYAKE, 1886'. (Fig. 4F)

Type condition. The aedeagus of the holotype is pinned separately. The right antenna is missing.

Current status. Hoplia shibatai makiharai (Miyake, 1986), see Kobayashi (2017).

Pseudohoplia shibatai matsudai Miyake

Figure 4G

Pseudohoplia shibatai matsudai Miyake, 1986b: 202.

Note. The holotype is deposited in RIEB (ex coll. Y. Miyake):

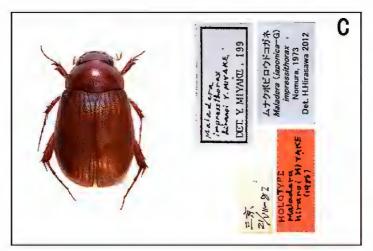
Holotype (3). 'Mt. Nōko / C-Formosa / v-20~vi-21' 66 // HOLOTYPE / Pseudohoplia / shibatai matsudai / Y. MIYAKE, 1986'. (Fig. 4G)

Type condition. The aedeagus of the holotype is pinned separately.

Current status. Junior subjective synonym of *Hoplia shibatai shibatai* (Miyake, 1986), see Kobayashi (2017).









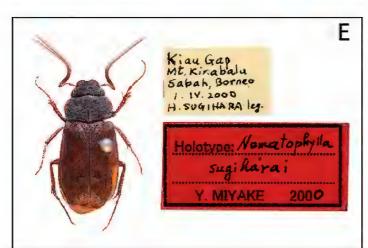








Figure 4. Habitus of holotype specimens. **A** *Hoplia simillima* Miyake **B** *Hoplia taiwana* Miyake **C** *Maladera hiranoi* Miyake **D** *Maladera kusuii* Miyake **E** *Nematophylla sugiharai* Miyake **F** *Pseudohoplia shibatai makiharai* Miyake **G** *Pseudohoplia shibatai matsudai* Miyake **H** *Paratrichius kyushuensis* Miyake.

Genus Pseudomaladera

Pseudomaladera nitidifrons Nomura

Pseudomaladera nitidifrons Nomura, 1974: 96.

Note. The following paratypes are deposited in RIEB (ex coll. S. Nomura):

Paratypes. 2 exs.: 1 6 'FUNCHIHO / FORMOSA / 1. VIII. 1973 / H. OHASHI // 6 // 三宅= miyake // Paratype / Pseudomaladera / nitidifrons / NOMURA, 1974'. 1 6 'MEIFENG / FORMOSA / 1. VIII. 1973 / T. OCHI // 6 // Paratype / Pseudomaladera / nitidifrons / NOMURA, 1974'.

Current status. Valid species.

Genus Sinoserica

Sinoserica maculipennis Miyake & Yamaya

Sinoserica maculipennis Miyake & Yamaya, 2001: 40-41.

Note. The following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Paratypes. 2 exs.: 'China, Yunnan / Boshan C. env. / 2100 m alt. / 10. VII. 1998 / A. Gorodinski // 12 // Paratype / Sinoserica / maculipennis'.

Current status. *Trioserica maculipennis* (Miyake et Yamaya, 2001), see Ahrens and Bezděk (2016).

Genus Serica

Serica fusifemorata Nomura

Serica fusifemorata Nomura, 1974: 91.

Note. The following paratypes are deposited in RIEB (ex coll. S. Nomura):

Current status. Valid species.

Serica gansuensis Miyake & Yamaya

Serica gansuensis Miyake & Yamaya, 2001: 35–36.

Note. The following paratype is deposited in RIEB (ex coll. Y. Miyake):

Paratype. 1 ex.: 'China, Gangu / Mts. Minshan / nr. Wudn. 2100 / 1. VI. 1997 / A. Gorodinski // 4 // Paratype: / Serica / gansuensis'.

Current status. Valid species.

Genus Sericania

Sericania miyakei Nomura

Sericania miyakei Nomura, 1960: 60.

Note. The following paratype is deposited in RIEB (ex coll. S. Nomura):

Paratype. 1 ex.: 'Paratype // TASHIRO / CHIKUGO / 4. V. 1952 / Y. MIYAKE // Sericania / miyakei / NOMURA (1960)'.

Current status. Valid species.

Genus Sophrops

Sophrops takatoshii Itoh

Sophrops takatoshii Itoh, 1990: 9-10.

Note. The following paratypes are deposited in RIEB (ex coll. T. Itoh):

Paratypes. 3 exs.: '1989–4–17 / 平良植物園= hirara-syokubutsuen /(宮古島)= miyako-jima / leg. T. Ueno // Paratype / Sophrops / takatoshii / T. Itoh'.

Current status. Valid species.

Genus Taiwanoserica

Taiwanoserica elongata Nomura

Taiwanoserica elongata Nomura, 1974: 86.

Note. The following paratype is deposited in RIEB (ex coll. S. Nomura):

Paratypes. 1 ex.: 1 ♂ 'MT. ARI / FORMOSA / 30. VII. 1973 / H. OHASHI // ♂ // 三宅= miyake // Paratype / Taiwanoserica / elongata / NOMURA (1974)'.

Current status. Serica (Taiwanoserica) elongata (Nomura, 1974), see Ahrens and Bezděk (2016).

Taiwanoserica lishana Nomura

Taiwanoserica lishana Nomura, 1974: 87.

Note. The following paratypes are deposited in RIEB (ex coll. S. Nomura):

Paratypes. 22 exs.: 2 \circlearrowleft 'Lishan / C. Taiwan / 30. vii. 1970 / Y. Miyake // \circlearrowleft // PARATYPE / Taiwanoserica / lishana / S. Nomura (1974)'. 6 \circlearrowleft 'Lishan / C-Taiwan / 29. vii. 1973 / Y. Miyake // \circlearrowleft // PARATYPE / Taiwanoserica / lishana / S. Nomura (1974)'. 4 \circlearrowleft 'Lishan / C-Taiwan / 29. vii. 1973 / Y. Miyake // \circlearrowleft // PARATYPE / Taiwanoserica / lishana / S. Nomura (1974)'. 4 \circlearrowleft 'Li-shan / Taiwan / 29. VII. 1974 / Y. Miyake // \circlearrowleft // PARATYPE / Taiwanoserica / lishana / S. Nomura (1974)'. 1 \circlearrowleft 'Li-shan / Taiwan / 29. VII. 1974 / Y. Miyake // \circlearrowleft // PARATYPE / Taiwanoserica / lishana / S. Nomura (1974)'. 4 \circlearrowleft 'Li-shan / Taiwan / 1. VII. 1974 // Y. Miyake // \circlearrowleft // PARATYPE / Taiwanoserica / lishana / S. Nomura (1974)'. 1 \circlearrowleft 'Li-shan / Taiwan / 1. VII. 1974 // Y. Miyake // \circlearrowleft // PARATYPE / Taiwanoserica / lishana / S. Nomura (1974)'.

Current status. Serica (Taiwanoserica) lishana (Nomura, 1974), see Ahrens and Bezděk (2016).

Genus Trichomaladera

Trichomaladera elongata Nomura

Trichomaladera elongata Nomura, 1974: 93-94.

Note. The following paratype is deposited in RIEB (ex coll. S. Nomura):

Paratype. 1 ex.: 1 ♂ 'Paratype / Trichomaladera / elongata / NOMURA (1974)'.

Current status. Valid species.

Remark. The collecting data label of the paratype is missing.

Genus Trichoserica

Trichoserica elongata nitididorsis Nomura

Trichoserica elongata nitididorsis Nomura, 1971: 70-71.

Note. The following paratype is deposited in RIEB (ex coll. S. Nomura):

Paratype. 1 ex.: 'Mt. Hiko / [KYUSHU] / 27. 7. 1960 / TAKEISHI // Paratype / Trichoserica / elongata / nitididorsis / Nomura'.

Current status. Serica nitididorsis (Nomura, 1971), see Ahrens and Bezděk (2016).

Trichoserica incurvata Nomura

Trichoserica incurvata Nomura, 1971: 67-68.

Note. The following paratypes are deposited in RIEB (ex coll. S. Nomura):

Paratypes. 8 exs.: 1 ex. 'Aomori-pref / 17–vii–1956 / S. Kimotog // Paratype / Trichoserica / incurvata / Nomura (1971) // Aomori / 17. VII. 1956 / S. Kimoto'. 1 ♂ '17. VII. 1956 / S. Kimoto // Paratype / Trichoserica / incurvata / Nomura (1971)'. 2 exs. 'Aomori-pref / 19–vii–1956 / S. Kimotog // Paratype / Trichoserica / incurvata / Nomura (1971) // Kimoto S. / 19. VII. 1956'. 1 ex. 'Aomori-pref / 19–vii–1956 / S. Kimotog // Paratype / Trichoserica / incurvata / Nomura (1971) // 19. VII. 1956 / S. Kimoto'. 2 exs. 'Sensuidani 1200 m / Okutama Tokyo / 21–VII–1968 / Coll. H. Yuasa // Paratype / Trichoserica / incurvata / Nomura (1971)'. 1 ex. 'Okutama / 21. VII. 1968 / YUASA // Paratype / Trichoserica / incurvata / Nomura (1971)'.

Current status. Serica incurvata (Nomura, 1971), see Ahrens and Bezděk (2016).

Trichoserica nitidiceps Nomura

Trichoserica nitidiceps Nomura, 1971: 69-70.

Note. The following paratype is deposited in RIEB (ex coll. S. Nomura):

Paratype. 1 ex.: 1 & '(Kyushu) / Mt. Sobo / 23. V. 1952 / Y. Miyake //Paratype / Trichoserica / nitidiceps / NOMURA'.

Current status. Junior subjective synonym of *Serica inexspectata* (Kontkanen, 1956), see Ahrens and Bezděk (2016).

Remark. In addition to the paratype mentioned above, the following specimen labeled as paratype is not designated in the original description: 1 ex. 'Mt. Kuju / Bungo / 28. vii. 1961 / Y. Miyake // Paratype / Trichoserica / nitidiceps / NOMURA (1971)'.

Trichoserica opacifrons Nomura

Trichoserica opacifrons Nomura, 1971: 68-69.

Note. The following paratypes are deposited in RIEB (ex coll. S. Nomura):

Paratypes. 3 exs.: 1 ♂ 'Mt. Hiko / Buzen / 1. VIII. 1953 / Y. Miyake // Paratype / Trichoserica / opacifrons / NOMURA'. 1 ex. 'mt. Kujū / Hokkeein / 27. VII. 1961 / Y. Miyake Coll // Paratype / Trichoserica / opacifrons / NOMURA'. 1 ♂ '[Kyushu] / Yakushima / 21. Vi. 1954 / Col. K. Matsuda // Paratype / Trichoserica / opacifrons / NOMURA // Ophthalmoserica/ matsudai / sp.n. / DET. Y. MIYAKE'.

Current status. Senior objective synonym of *Serica planifrons* Nomura, 1972, see Ahrens and Bezděk (2016). Nomura (1972) proposed *Serica planifrons* as a replacement name for *Serica opacifrons* (Nomura, 1971), a junior secondary homonym of *Serica opacifrons* Fairmaire, 1891.

Subfamily Cetoniinae Genus *Anomalocera*

Anomalocera paotao Masumoto & Sakai

Anomalocera paotao Masumoto & Sakai, 1987a: 51-54.

Note. The following paratypes are deposited in RIEB (ex coll. Masumoto):

Paratypes. 2 exs.: 1 ex. 'Lishan / Taiwan / 28. VII. 1974 / Y. Miyake // Paratype / Anomalocera / paotao MAS. et SAK.'. 1 ex. 'Lishan / C, -Taiwan / 29 vii. 1973 / Y. Miyake // Paratype / Anomalocera / paotao MAS. et Sak.'.

Current status. Diphyllomorpha paotao (Masumoto et Sakai, 1987), see Bezděk (2016).

Genus Rhomborhina

Rhomborhina kurosawai Masumoto & Sakai

Rhomborhina kurosawai Masumoto & Sakai, 1987b: 104-105, 107.

Note. The following paratypes are deposited in RIEB (ex coll. Masumoto):

Paratypes. 3 exs.: 2 💍 'FORMOSA / tattaka / 9, VIII 1971 / H. OHARA // Paratype / Rhomborrhina / kurosawai / MASUMOTO et K. SAKAI'. [[1 💍 'Tsuifeng / C. Tsiwan / 26. vii. 1970 (the date given in the original description is 27.vii.1970) // Y. Miyake // Paratype / Rhomborrhina / kurosawai / MASUMOTO et K. SAKAI']].

Current status. Valid species.

Genus Thaumastopeus

Thaumastopeus chicheryi tenuigenius Miyake & Yamaya

Thaumastopeus chicheryi tenuigenius Miyake & Yamaya, 1995: 38.

Note. The following paratype is deposited in RIEB (ex coll. Y. Miyake):

Paratype. 1 ex.: 1 & 'N. Keningau / N. Borneo / 30. V. 1994 // Paratype: Thaumastopeus / chicheryi tenuigenius / Y. MIYAKE et YAMAYA, 1995'.

Current status. Valid species.

Genus Paratrichius

Paratrichius hatai Miyake

Paratrichius hatai Miyake, 1989: 41-42.

Note. The following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Paratypes. 4 exs.: [['Tanah Rata / MALAYA / 7. IV. 1972 (the date given in the original description is 7.IV.1978) / M. Hata // Paratype: / Paratrichius / hatai / Y. MIYAKE, 1989']].

Current status. Valid species.

Paratrichius kyushuensis Miyake

Figure 4H

Paratrichius kyushuensis Miyake, 1990: 30-32.

Note. The holotype and following paratypes are deposited in RIEB (ex coll. Y. Miyake): Holotype (3). 'MT. SOBO / BUNGO / 28. vii. 1954 / Y. MIYAKE // Holotype: / Paratrichius / kyushuensis / Y. MIYAKE, 1990'. (Fig. 4H)

Paratypes. 5 exs.: 1 ex. '(Kyushu) / Mt. Sobo / 24. VII. 1950 / Y. Miyake // Paratype: Paratrichius / kyushuensis / Y. MIYAKE, 1990'. 1 & '(Kyushu) / Mt. Sobo / 24. VII. 1952 / Y. Miyake // Paratype: Paratrichius / kyushuensis / Y. MIYAKE, 1990'. 1 ex. '(Kyushu) / Mt. Ichi Fu Sa / 28 VII 1952 / Col. S. Kimoto // Paratype: Paratrichius / kyushuensis / Y. MIYAKE, 1990'. 1 ex. 1 & '(Kyushu) / Mt. Sobo / 24. VII. 1953 / K. MATSUDA // Paratype: Paratrichius / kyushuensis / Y. MIYAKE, 1990'.

Type condition. The left metatarsus of the holotype is missing.

Current status. Valid species.

Remark. The date on the label of the holotype is 28.VII.1954 while that in the original description is 28.VII.1952.

In addition to the paratypes mentioned above, the following specimen labeled as paratype is not designated in the original description.: 1 ex. '⑦ // Paratype: Paratrichius / kyushuensis / Y. MIYAKE, 1990'.

Genus Tibiotrichius

Tibiotrichius vietnamensis Miyake

Figure 5A

Tibiotrichius vietnamensis Miyake, 1996: 44.

Note. The holotype is deposited in RIEB (ex coll. Y. Miyake):

Holotype (♂). 'M. ITO leg / Sapa=Chapa / N. Vietnam / 23–V–1995 // サパ= sapa [aedeagus mount] // Holotype: Tibiotrichius / vietnamensis Y. MIYAKE, 1996'. (Fig. 5A)

Type condition. The aedeagus of the holotype is pinned separately.

Subfamily Valginae Genus *Charitovalgus*

Charitovalgus banzai Sawada

Figure 5B

Charitovalgus banzai Sawada, 1941: 8-9.

Note. The neotype is deposited in RIEB (ex coll. Y. Miyake):

Neotype (3). 'Hourng Shoei ken / near Liukuei, / Kao Hsung Hsien / VII. 1972 W. Chen leg // Holotype: Neotype / Charitovalgus / banzai SAWADA / Y. MIYAKE, 1993'. (Fig. 5B)

Type condition. The right and left metatarsi of the neotype are missing. **Current status.** Valid species.

Remark. The neotype was designated by Miyake (1993).

Genus Dasyvalgus

Dasyvalgus annamensis Miyake

Figure 5C

Dasyvalgus annamensis Miyake, 1993a: 21-22.

Note. The holotype and following paratype are deposited in RIEB (ex coll. Y. Miyake): **Holotype** (3). '4. 4 / 203 // Iluon Ma Thuot / Annam M. ITO // Holotype: Dasyvalgus / Annamensis / Y. MIYAKE, 1993'. (Fig. 5C)

Paratype. 1 ex.: 1 \circlearrowleft 'Iluon Ma Thuot / Annam M. ITO // Paratype: Dasyvalgus / annamensis / Y. MIYAKE, 1993'.

Current status. Valid species.

Remark. The locality on the collecting data label of the holotype is 'Iluon Ma Thuot', but the locality given in the original description is 'Ban Me Thuot'. However, the habitus of the holotype and the figure in the original description match. Probably, Miyake made a typographical error when writing the description.

Dasyvalgus castaneodorsalis Miyake

Figure 5D

Dasyvalgus castaneodorsalis Miyake, 1993a: 24-25.

Note. The holotype and following paratypes are deposited in RIEB (ex coll. Y. Miyake): Holotype (3). (Thailand) Pupin–Doi Phui / 19–IV–1985 / M. TAO leg. // Holotype: Dasyvalgus / casraneodorsalis / Y. MIYAKE, 1993'. (Fig. 5D)

Paratypes. 6 exs.: 2 & (Thailand) Pupin-Doi-Phui / 19–IV–1985 / M. TAO leg. // Paratype: Dasyvalgus / castaneodorsalis / Y. MIYAKE, 1993'. 1 & (Thailand) Pupin-Doi-Phui / 21–IV–1985 / M. TAO leg. // Paratype: Dasyvalgus / castaneodorsalis / Y. MIYAKE, 1993'. 2 & (Thailand) Pupin / 21–IV–1985 / M. TAO // Paratype: Dasyvalgus / castaneodorsalis / Y. MIYAKE, 1993'. 1 & (Thailand) Doi Suthep / 10–V–1985 / M. TAO leg. // Paratype: Dasyvalgus / castaneodorsalis / Y. MIYAKE, 1993'.

Type condition. The aedeagus of the holotype is pinned separately. **Current status.** Valid species.

Dasyvalgus decamaculatus Miyake

Figure 5E

Dasyvalgus decamaculatus Miyake, 1993a: 22-23.

Note. The holotype and following paratypes are deposited in RIEB (ex coll. Y. Miyake): Holotype (3). 'Iluon Ma Thuot / Annam M. ITO // Holotype: / Dasyvalgus / decamaculatus / Y. MIYAKE, 1993'. (Fig. 5E)

Paratypes. 2 exs.: 1 ex. 'Near Chang Mai / N. Thailand / 7–V–1994 / K. KUME leg. // Paraype: Dasyvalgus / decamaculatus / Y. MIYAKE, 1993'. 1 ex. 'Paratype: Dasyvalgus / decamaculatus / Y. MIYAKE, 1993'.

Type condition. The right and left metatarsus are missing.

Current status. Valid species.

Remark. The locality on the collecting data label of the holotype is 'Iluon Ma Thuot', but the locality given in the original description is 'Ban Me Thuot'. However, the habitus of the holotype and the figure in the original description match. Probably, Miyake caused a typographical error when writing the description.

Dasyvalgus flavicauda Miyake, Yamaguchi et Aoki Figure 5F

Dasyvalgus flavicauda Miyake, Yamaguchi, Aoki et Akiyama, 2002: 65-66.

Note. The holotype and following paratype are deposited in RIEB (ex coll. Y. Miyake): Holotype (3). 'Ban Lao Kram / Mukdahan / E-THAILAND / 17. Feb. 1999 / S. Yamaguchi and / T. Aoki leg. // Holotype: / Dasyvalgus / flavicauda // Holotype / Dasyvalgus flavicauda / Y. MIYAKE, YAMAGUCHI / et AOKI 2002'. (Fig. 5F)

Paratype. 1 ex.: 1 ♂ 'Phu Huai Sing / Mukdahan / E–THAILAND / 19. Feb. 1999 / S. Yamaguchi and / T. Aoki leg. // Paratype / Dasyvalgus flavicauda / Y. MI-YAKE, YAMAGUCHI / et AOKI 2002'.







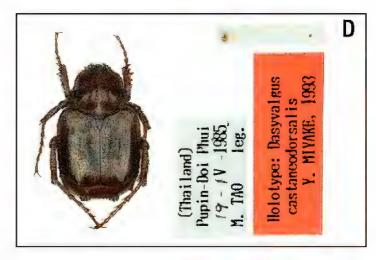










Figure 5. Habitus of holotype specimens. **A** *Tibiotrichius vietnamensis* Miyake **B** *Charitovalgus banzai* Sawada **C** *Dasyvalgus annamensis* Miyake **D** *Dasyvalgus castaneodorsalis* Miyake **E** *Dasyvalgus decamaculatus* Miyake **F** *Dasyvalgus flavicauda* Miyake **G** *Dasyvalgus macacus* Miyake **H** *Dasyvalgus multicus* Miyake.

Dasyvalgus macacus Miyake

Figure 5G

Dasyvalgus macacus Miyake, 1993a: 24.

Note. The holotype and following paratypes are deposited in RIEB (ex coll. Y. Miyake): Holotype (3). (Thailand Pupin-Doi Phui / 19–IV–1985 / M. TAO leg. // Holotype: Dasyvalgus / macacus / Y. MIYSKE, 1993'. (Fig. 5G)

Paratypes. 4 exs.: 1 (Thailand) Pupin-Doi Phui / 1–V–1985 / M. TAO leg. // Paratype: Dasyvalgus / macacus / Y. MIYAKE, 1993'. 1 (Thailand) Pupin-Doi Phui / 5–V–1985 / M. TAO leg. // Paratype: Dasyvalgus / macacus / Y. MIYAKE, 1993'. 1 (Thailand) Pupin-Doi Phui / 12–V–1985 / M. TAO leg. // Paratype: Dasyvalgus / macacus / Y. MIYAKE, 1993'. 1 (Thailand) Pupin-Doi Phui / 21–V–1985 / M. TAO leg. // Paratype: Dasyvalgus / macacus / Y. MIYAKE, 1993'.

Current status. Valid species.

Remark. The habitus photograph in the original description does not refer to the holotype.

Dasyvalgus makiharai Miyake

Dasyvalgus makiharai Miyake, 1985: 11–12.

Note. The following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Paratype. 1 ex.: 'MEIFENG / FORMOSA / 3–VII. 74 / T, OCHI // Paratype: / Dasyvalgus / makiharai Y. MIYAKE / (1985)'.

Current status. Valid species.

Remark. In addition to the paratype mentioned above, the following specimens labeled as paratype are not designated in the original description: 1 ex. '松崗= songgang / 27~29. VII 1968 / K. YAMAMOTO // Paratype: Dasyvalgus / makiharai / Y. MIYAKE, 1985'. 1 ♂ 'SUNG KANG / FORMOSA / 30–VI, 74 / T. OCHI // Paratype: / Dasyvalgus / makiharai Y. MIYAKE / (1985)'.

Dasyvalgus minahasanus Miyake

Dasyvalgus minahasanus Miyake, 1989b: 42-43.

Note. The following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Paratypes. 78 exs.: 75 exs. 'Tondano / N. Sulawesi / 10–IV–1989 / Y. Miyake leg. // Paratype: / Dasyvalgus / minahasanus / Y. MIYAKE, 1989'. 3 exs. 'Tondano / N. Sulawesi / 9–IV–1989 / Y. Miyake leg. // Paratype: / Dasyvalgus / minahasanus / Y. MIYAKE, 1989'.

Current status. Valid species.

Remark. In addition to the paratypes mentioned above, the following specimen labeled as paratypes is not designated in the original description: 1 ex. 'Tondano / N. Sulawesi / 11–IV–1989 / Y. Miyake leg. // Paratype: / Dasyvalgus / minahasanus / Y. MIYAKE, 1989'.

Dasyvalgus multicus Miyake

Figure 5H

Dasyvalgus multicus Miyake, 1993a: 25-26.

Note. The holotype is deposited in RIEB (ex coll. Y. Miyake):

Holotype (♂). '[Thailand] / プピン-プイ= pupin-pui / 5–V–1985 / M. Tao leg. // Holotype: Dasyvalgus / multicus / Y. MIYAKE, 1993'. (Fig. 5H)

Type condition. The aedeagus of the holotype is pinned separately. The right and left protarsus are missing.

Current status. Valid species.

Dasyvalgus nudis Miyake

Figure 6A

Dasyvalgus nudis Miyake, 1994: 153.

Note. The holotype and following paratypes are deposited in RIEB (ex coll. Y. Miyake): Holotype (3). 'Cao Bang / N. Vietnam / 9–11. VI, 1993 / M. ITO leg // Holotype: Dasyvalgus / nudis / Y. MIYAKE, 1994'. (Fig. 6A)

Paratypes. 9 exs.: 3 & 'Cao Bang / N. Vietnam / 8–10 VI, 1993 / M. ITO leg. // Paratype: / Dasyvalgus / nudis / Y. MIYAKE, 1994'. 3 & 'Cao Bang / N. Vietnam / 10. VI, 1993 / M. ITO leg. // Paratype: / Dasyvalgus / nudis / Y. MIYAKE, 1994'. [[2 & 'Cao Bang / N. Vietnam / 9–11. VI, 1993 (real date is 8–10. VI. 1993) / M. ITO leg. // Paratype: / Dasyvalgus / nudis / Y. MIYAKE, 1994']]. [[1 ex. 'Cao Bang / N. Vietnam / 11. VI, 1993 (real date is 8–10. VI. 1993) / M. ITO leg. // Paratype: / Dasyvalgus / nudis / Y. MIYAKE, 1994']].

Type condition. The aedeagus of the holotype is pinned separately. The right antenna is missing.

Current status. Valid species.

Remark. The date on the collecting data label of the holotype is 9–11,VI,1993, but the collecting date quoted in the original description is 8–10,VI,1993. However, the habitus of the holotype and the figure in the original description match. Probably, Miyake caused a typographical error when writing the description.





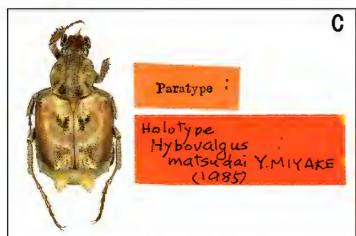








Figure 6. Habitus of holotype specimens. **A** *Dasyvalgus nudis* Miyake **B** *Dasyvalgus rubrothoracicus* Miyake **C** *Hybovalgus matsudai* Miyake **D** *Neovalgus formosanus* Miyake **E** *Oreoderus quadrimaculatus* Miyake **F** *Tarsovalgus hatai* Miyake.

Dasyvalgus rubrothoracicus Miyake

Figure 6B

Dasyvalgus rubrothoracicus Miyake, 1993a: 23-24.

Note. The holotype and following paratypes are deposited in RIEB (ex coll. Y. Miyake): Holotype (3). (Thailand) Pupin–Doi Phui / 21–IV–1985 / M. TAO leg. // Holotype: Dasyvalgus / rubrothoracicus / Y. MIYAKE, 1993'. (Fig. 6B)

Paratypes. 11 exs.: 1 ex. 'Doi Sutehp / Thailand / 28–IV–1985 / M Tao leg. // TDvA // Paratype: Dasyvalgus / rubrothoracicus / Y. MIYAKE, 1993'. 1 (Thailand) Pupin-Doi-Phui / 1–V–1985 / M. TAO leg. // Paratype: Dasyvalgus / rubrothoracicus

/ Y. MIYAKE, 1993'. 1 ♂ (Thailand) Pupin-Doi-Phui / 1–V–1985 / M. TAO leg. // TDvA // Paratype: Dasyvalgus / rubrothoracicus / Y. MIYAKE, 1993'. 1 d (Thailand) Pupin-Doi-Phui / 5-V-1985 / M. TAO leg. // TDvA // TDvA // Paratype: Dasyvalgus / rubrothoracicus / Y. MIYAKE, 1993'. 1 d (Thailand) Pupin-Doi-Phui / 11–V–1985 / M. TAO leg. // Paratype: Dasyvalgus / rubrothoracicus / Y. MIYAKE, 1993'. [[1 3] (Thailand) Pupin-Doi-Phui / 17–V–1985 (the date given in the original description is 17–IV–1985) / M. TAO leg. // Paratype: Dasyvalgus / rubrothoracicus / Y. MIYAKE, 1993']]. [[1 [Thailand] Pupin-Doi-Phui / 21–V–1985 (the date given in the original description is 21-IV-1985) / M. TAO leg. // TDvA // Paratype: Dasyvalgus / rubrothoracicus / Y. MIYAKE, 1993']]. [[1 👌 (Thailand) Pupin-Doi-Phui / 21–V–1985 (the date given in the original description is 21–IV–1985) / M. TAO leg. // TDvA // Paratype: Dasyvalgus / rubrothoracicus / Y. MIYAKE, 1993']]. [[1 \(\)(Thailand)\) Pupin-Doi-Phui / 23–V–1985 (the date given in the original description is 23–IV–1985) / M. TAO leg. // Paratype: Dasyvalgus / rubrothoracicus / Y. MIYAKE, 1993']]. [[2 3 (Thailand) Pupin-Doi-Phui / 28–V–1985 (the date given in the original description is 28–IV–1985) / M. TAO leg. // TDvA // Paratype: Dasyvalgus / rubrothoracicus / Y. MIYAKE, 1993']].

Type condition. The aedeagus of the holotype is pinned separately. **Current status.** Valid species.

Remark. The date on the collecting data label of the holotype is 21–IV–1985, but the collecting date quoted in the original description is 5–V–1985. However, the habitus of the holotype and the figure in the original description match. Probably, Miyake caused a typographical error when writing the description.

Dasyvalgus similis Miyake

Dasyvalgus similis Miyake, 1985: 8-9.

Note. The following paratypes are deposited in RIEB (ex coll. Y. Miyake):

Paratypes. 3 exs.: 1 ♂ '蓬来= hôrai / 20, 21 VIII 1968 / H. MAKIHARA // Paratype'. 1 ♂ 'FUNCHIIFO / FORMOSA / 1. VI. 1970 / Y. KIYOYAMA // Paratype // Paratype / Dasyvalgus / similis, Y. MIYAKE / 1985'. 1 ♂ 'FUNCHIIFO / FORMOSA / 1. VI. 1970 / Y. KIYOYAMA // Paratype'.

Current status. Senior objective synonym of *Dasyvalgus taiwanus* Miyake, 1991. Miyake in Miyake et al. (1991) proposed *Dasyvalgus taiwanus* as a replacement name for *Dasyvalgus similis* Miyake, 1985, a junior primary homonym of *Dasyvalgus similis* Moser, 1908.

Remark. In addition to the paratypes mentioned above, the following specimens labeled as paratypes are not designated in the original description: 1 ex. 'LIUKUEI / FORMOSA / 3. X. 1970 / Y. KIYOYAMA // 16 // Paratype // Paratype / Dasyvalgus / similis Y. MIYAKE, 1985'. 1 ex. 'NANSHANCHI / FORMOSA / 27. VI. 1971 / Y. MAEDA // Paratype // Paratype / Dasyvalgus / similis Y. MIYAKE, 1985'. 1 ex. '紅水坑= hongshuikeng / Liukuei / 11. V. 1978 / Chen. W. // Paratype'. 1 ♂ '紅水坑= hongshuikeng / Liukuei / 11. V. 1978 / Chen. W. // Paratype'. 1 ex. '紅水坑= hongshuikeng / Liukuei / 11. V. 1978 / Chen. W. // Paratype'. 1 ex. '紅水坑= hongshuikeng / Liukuei / 11. V. 1978 / Chen. W. // Paratype'. 1 ex. '紅水坑= hongshuikeng / Liukuei / 11. V. 1978 / Chen. W. // Paratype'. 1 ex. '紅水坑= hongshuikeng / Liukuei / 11. V. 1978 / Chen. W. // Paratype'. 1 ex. '紅水坑= hongshuikeng / Liukuei / 11. V. 1978 / Chen. W. // Paratype'. 1 ex. '紅水坑= hongshuikeng / Liukuei / 11. V. 1978 / Chen. W. // Paratype'. 1 ex. '紅水坑= hongshuikeng / Liukuei / 11. V. 1978 / Chen. W. // Paratype'. 1 ex. '紅水坑= hongshuikeng / Liukuei / 11. V. 1978 / Chen. W. // Paratype'. 1 ex. '紅水坑= hongshuikeng / Liukuei / 11. V. 1978 / Chen. W. // Paratype'. 1 ex. '紅水坑= hongshuikeng / Liukuei / 11. V. 1978 / Chen. W. // Paratype'. 1

ikeng / Liukuei / 11. V. 1978 / W. Chen // Paratype // Paratype / Dasyvalgus / similis Y. MIYAKE, 1985'. 1 ex. 'Paratype'.

Dasyvalgus wadai Miyake

Dasyvalgus wadai Miyake, 1985: 9-10.

Note. The following paratype is deposited in RIEB (ex coll. Y. Miyake):

Paratype. 1 ex.: 1 d' 'Paratype / Dasyvalgus / wadai Y. MIYAKE, 1985'.

Current status. Valid species.

Remark. This paratype has no collecting data label.

Genus Hybovalgus

Hybovalgus matsudai Miyake

Figure 6C

Hybovalgus matsudai Miyake, 1985: 6.

Note. The holotype is deposited in RIEB (ex coll. Y. Miyake):

Holotype (*(*). 'Paratype // Holotype / Hybovalgus / matsudai Y. MIYAKE / (1985)'.

Type condition. The right protarsus is missing.

Current status. Valid species.

Remark. There is no data label attached to the holotype, but the habitus of the holotype matches the figure in the original description. If confidence is placed in the pinned holotype label and the habitus, the above holotype specimen is the true holotype.

Genus Neovalgus

Neovalgus formosanus Miyake

Figure 6D

Neovalgus formosanus Miyake, 1985: 3.

Note. The holotype and following paratypes are deposited in RIEB (ex coll. Y. Miyake): Holotype (分). '六亀= liugui. 石山= shi shan / 9. VI. 1976 / 2000m // Holotype:

/ Neovalgus / formosanus / Y, MIYAKE, 1985'. (Fig. 6D)

Paratypes. 2 exs.: 1 ex. '[Taiwan] / Baibara, mt. Puli / -V-1965 // Paratype: Neovalgus / formosanus Y. MIYAKE, 1985'. 1 ex. '[Taiwan] / Liukuei / 16-V-1978 // PARATYPE / Neovalgus / formosanus / Y. MIYAKE, 1985'.

Remark. The date on the collecting label of the holotype is 9.VI.1976, but the collecting date quoted in the original description is 16.V.1978. However, the habitus of the holotype matches the figure in the original description. Probably, Miyake caused a typographical error when writing the description.

In addition to the paratypes mentioned above, the following specimens labeled as paratypes are not designated in the original description: 3 exs. '[Taiwan] / Baibara, mt. Puli / –V–1965 // PARATYPE / Neovalgus / formosanus / Y. MIYAKE, 1985'. 1 ex. 'Formosa / Wushe / V. 1965 / T. Shiroz / Paratype: Neovalgus / formosanus / Y. MIYAKE, 1985'. 1 ex. '六 亀= liugui, 石山= shi shan / 2000 m / 9–VI–1976 / Paratype / Neovalgus / formosanus / Y. MIYAKE, 1985'. 1 ex. 'Paratype: / Neovalgus / formosanus / Y. MIYAKE, 1985'.

Genus Oreoderus

Oreoderus quadrimaculatus Miyake, Yamaguchi et Aoki Figure 6E

Oreoderus quadrimaculatus Miyake, Yamaguchi, Aoki et Akiyama, 2002: 64-65.

Note. The holotype is deposited in RIEB (ex coll. Y. Miyake):

Holotype (3). 'Phu Huai Sing / Mukdahan / E-THAILAND / 19. Feb. 1999 / S. Yamahuchi and T. Aoki leg. // Holotype: / Oreoderus / quadrumaculatus // Or. 4ml / Coll. // Holotype / Oreoderus quadrimaculatus / Y. MIYAKE, YAMAGUCHI / et AOKI 2002'. (Fig. 6E)

Type condition. The aedeagus of the holotype is pinned separately. The right protarsus is missing.

Current status. Valid species.

Genus Tarsovalgus

Tarsovalgus hatai Miyake

Figure 6F

Tarsovalgus hatai Miyake, 1993b: 32-33.

Note. The holotype and following paratype are deposited in RIEB (ex coll. Y. Miyake): **Holotype** (♂). '[Malaya] / − −1992 // Holotype: Tarsovalgus / hatai Y. MIYAKE, 1993'. (Fig. 6F)

Paratype. 1 ex.: '[Malaya] / -1992 // Paratype: / Tarsovalgus / hatai / Y. MI-YAKE, 1993'.

Family Trogidae Genus *Trox*

Trox kyotensis Ochi & Kawahara

Trox kyotensis Ochi & Kawahara, 2000: 53-56.

Note. The following paratype is deposited in RIEB (ex coll. T. Ochi):

Paratype. 1 ex.: 'YAMAZAKI- / CHO, KYOTO. / 5–IV, 1999 / M. KAWAHA-RA // PARATYPE / Trox / kyotensis / OCHI and KAWAHARA / 2000'.

Current status. Trox (Niditrox) kyotensis Ochi et Kawahara, 2000, see Kalz (2019).

Trox sabulosus fujiokai Ochi

Trox sabulosus fujiokai Ochi, 2000: 43-44.

Note. The following paratype is deposited in RIEB (ex coll. T. Ochi):

Paratype. 1 ex.: 'Yukyuzan-Park, Nagaoka / Niigata Pref., Japan / 28. V. 1997 / Y and M. Kawahara leg // PARATYPE / Trox / Sabulosus / Subsp. fujiokai / OCHI, 2000'. Current status. Valid species.

Trox setifer horiguchii Ochi & Kawahara

Trox setifer horiguchii Ochi & Kawahara, 2002: 54-55.

Note. The following paratype is deposited in RIEB (ex coll. T. Ochi):

Paratype. 1 ex.: 1♂ 'MEBORO-DAM / KAMIAGATA. T. / IS. TSUSHIMA / NAGASAKI. J. P / 25–V. 2002 / Y and M. KAWAHARA // 対県= tsu-ken上県町= kamiagata-chô / 目保呂ダム= meborodamu / 25. V. 2002 / Y and M. Kawahara // ♂ // PARATYPE / Trox / setifer / subsp. horiguchii / OCHI and KAWAHARA / 2002'.

Current status. Trox horiguchii Ochi and Kawahara, 2002, see Pittino (2006).

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References

- Ahrens D (1995) Taxonomische Studien an Sericinae. Die Gattungen Deroserica Moser, 1915, Microsericaria Nikolaev, 1979, Pachyderoserica Moser, 1920 und Microserica Brenske, 1894. (Insecta: Coleoptera: Melolonthidae). Entomologische Abhandlungen des Staatlichen Museums für Tierkunde 57: 37–56.
- Ahrens D, Bezděk A (2016) Sericini. In: Löbl I, Löbl D (Eds) Catalogue of Palaearctic Coleoptera 3. Brill, Leiden, 281–317.
- Ahrens D, Stebnicka Z (1997) On the Aphodiinae of the Nepal-Himalayas. Stuttgarter Beiträge zur Naturkunde. Serie A. Biologie 552: 1–17.
- Aoki T, Yamaguchi S, Tannowa T (2005) Parnassinae butterflies and its publication collected by Makoto Nakamura (Insecta: Lepidoptera: Papilionidae). Evolutionary Sciences 11: 23–39.
- Aoki T, Yamaguchi S, Tannowa T (2008) Butterflies collected from Obi island, the Maluku islands, Indonesia donated by Kan-ichi Sohma. Evolutionary Sciences 14: 25–35.
- Bezděk A (2004) Catalogue of Diplotaxini (Coleoptera: Scarabaeidae: Melolonthinae) of the Old World. Zootaxa 463: 1–90. https://doi.org/10.11646/zootaxa.463.1.1
- Bezděk A (2016) Cetoniinae. In: Löbl I, Löbl D (Eds) Catalogue of Palaearctic Coleoptera 3. Brill, Leiden, 367–412.Burmeister HCC (1847) Handbuch der Entomologie. Coleoptera Lamellicornia, Xylophila et Pectinicornia, 5. Enslin, Berlin, 584 pp.
- Dellacasa M, Dellacasa G, Král D, Bezděk A (2016) Aphodiini. In: Löbl I, Löbl D (Eds) Catalogue of Palaearctic Coleoptera 3. Brill, Leiden, 98–155.
- Huang H, Chen C (2017) Stag Beetles of China III. Formosa Ecological Company, New Taipei, 524 pp.
- Ichikawa T, Imanishi O (1976) Some New Subspecies of the *Aegus laevicollis* Saunders from Japan (Coleoptera, Lucanidae). Elytra 3: 9–14.
- Itoh T (1989) A new species of the genus *Sophrops* from Is. Miyakojima, Ryukyus. Lamellicornia 5: 9–10.
- Jameson ML, Wada K (2004) Revision of the genus *Peltonotus* Burmeister (Coleoptera: Scarabaeidae: Dynastinae) from Southeastern Asia. Zootaxa 502: 1–66. https://doi.org/10.11646/zootaxa.502.1.1
- Kalz H (2019) Artenubersicht der Unterfamilie Troginae MACLEAY, 1819 mit Erganzungen zur Systematik (Coleoptera, Scarabaeoidea, Trogidae). Entomologische Nachrichten und Berichte 63: 149–152.
- Kobayashi H, Bezděk A (2011) Some new species of the genus *Apogonia* (Coleoptera, Scarabaeidae, Melolonthinae) from Southeast Asia, V. Kogane 12: 49–66.
- Kobayashi H (2010) Revisional notes of the genus *Apogonia* from Laos (Coleoptera, Scarabaeidae, Melolonthinae). Kogane 11: 41–66.
- Kobayashi H (2017) Notes on the genus *Hoplia* (Coleoptera, Scarabaeidae, Melolonthinae, Hopliini) from Taiwan. Kogane 20: 17–30.
- Kobayashi H (2018) On the genus *Adoretus* Dejean, 1833 (Coleoptera, Scarabaeidae, Rutelinae) from North Thailand. Kogane 21: 67–82.
- Krajcik M (2012) Checklist of the world Scarabaeoidea. Animma.x, supplement 5: 1–278.

- Krell F-T, Bezděk A (2016) Dynastinae. In: Löbl I, Löbl D (Eds) Catalogue of Palaearctic Coleoptera 3. Brill, Leiden, 358–367.
- Kuijten PJ (1994) Notes on the dynastid genus *Neohyphus* Heller, 1896 (Coleoptera, Lamellicornia). Deutsche Entomologische Zeitschrift 41: 57–61. https://doi.org/10.1002/mmnd.4810410103
- Masumoto K (1981) Description of a new species of genus *Aphodius* (*Agrilinus*) from Japan. Elytra 9: 73–74.
- Masumoto K, Sakai K (1987a) Study of Asian Cetoniinae (1). A new species of the genus *Anomalocera* from Taiwan. The Entomological Review of Japan 42: 51–54.
- Masumoto K, Sakai K (1987b) Study of Asian Cetoniinae (II). Notes on Taiwanese *Rhombor-rhina* with a description of a new species. The Entomological Review of Japan 42: 103–108.
- Masumoto K (1984) New Coprophagous Lamellicornia from Japan and Formosa. The Entomological Review of Japan 39: 73–83.
- Matsumoto T (2016) Three new genera of the subtribe Rhizotrogina (Scarabaeidae, Melolonthinae, Melolonthini). Kogane (18): 5–14.
- Miyake Y, Muramoto R (1992) On the ruteline beetles of the genus *Kibakoganea* Nagai from Northern Vietnam. Lamellicornia 7: 21–31.
- Miyake Y, Muramoto R (2003) Additional notes on the genus *Kibakoganea* (Scarabaeidae: Rutelinae) from northern Vietnam, with description of a new species. Kogane 4: 33–36.
- Miyake Y, Nakamura S, Kojima K (1991) The Scarabaeidae of Taiwan preserved in Hiwa Museum for Natural History, with description of two new species (Coleoptera: Polyphaga). Miscellaneous Reports of the Hiwa Museum for Natural History 29: 1–41.
- Miyake Y, Yamaguchi S, Aoki T, Akiyama M (2002) Note on beetles of the superfamily Scarabaeoidea collected in the semi-dried tropical forest in East Thailand (1999), together with description of one new genus and eleven new species. Science Report of the Research Institute of Evolutionary Biology 10: 43–76.
- Miyake Y, Yamaguchi S (1998) Note on beetles of the family Scarabaeidae collected in the semi-dried tropical forest in East Thailand, together with description of four new species. Science Report of the Research Institute of Evolutionary Biology 9: 21–32.
- Miyake Y, Yamaya S (1994) Some new scarabaeid species from southern Asia preserved in the Nagaoka Municipal Science Museum (II). Bulletin of the Nagaoka Municipal Science Museum 28: 35–45.
- Miyake Y, Yamaya S (1995) Some new beetles belonging to Scarabaeoidea. Preserved in the Nagaoka Municipal Science Museum. Bulletin of the Nagaoka Municipal Science Museum 30: 31–40.
- Miyake Y, Yamaya S (1997) New or little known Scarabaeid beetles from Southeast Asia, preserved in Nagaoka Municipal Science Museum. Bulletin of the Nagaoka municipal Science Museum 32: 5–20.
- Miyake Y, Yamaya S (1999) Descriptions of some new dynastid beetles from southeast Asia, preserved in Nagaoka Municipal Science Museum. Bulletin of the Nagaoka municipal Science Museum 34: 101–112.
- Miyake Y, Yamaya S (2001) Some scarabaeid beetles belonging to the tribe Sericini from Highlands of Western China, with descriptions of new genera and species. Bulletin of the Nagaoka municipal Science Museum 36: 35–44.

- Miyake Y (1982) A new *Rhyparus*-species from Kyushu, Japan. Kita-Kyusyu no Kontyu 29: 65–68.
- Miyake Y (1985) A revision of the subfamily Valginae from Taiwan. Lamellicornia 1: 1–14.
- Miyake Y (1986a) Notes on some Scarabaeidae-species from the Ryukyu Islands. Lamellicornia 2: 1–6.
- Miyake Y (1986b) On the tribe Hopliini from Taiwan. Japanese Society of Coleopterology 2: 199-212.
- Miyake Y (1987) Notes on some Ruteline beetles, tribe Anomalini from Taiwan. Lamellicornia 3: 1–9.
- Miyake Y (1989a) New or little known scarabaeid beetles from Southeast-Asia. Kanagawa-Chûhô 90: 177–186.
- Miyake Y (1989b) New or little known scarabaeid beetles from South-eastern Asia. Lamellicornia 5: 37–45.
- Miyake Y (1990) On the *Paratrichius doenitzi* (Harold) and its relatives in Japan. Kita-Kyûshû no Konchû 37: 27–32. [In Japanese with English summary]
- Miyake Y (1993a) New or little known species of subfamily Valginae from Indochina. Lamellicornia (9): 21–30.
- Miyake Y (1993b) A new genus and a new species of the subfamily Valginae from Malay. Lamellicornia (9): 32–34.
- Miyake Y (1994) New or little known scarabaeid beetles from Southeast-Asia II. Special Bulletin Essa entomological Society 2: 139–156.
- Miyake Y (1996) New or little known scarabaeid beetles from South-eastern Asia III. Lamellicornia (11): 33–54.
- Miyake Y (2000) New or little known scarabaeid beetles from Southeast Asia IV. Science Report of the Research Institute of Evolutionary Biology 9: 105–120.
- Nikolajev GV, Král D, Bezděk A (2016) Geotrupidae. In: Löbl I, Löbl D (Eds) Catalogue of Palaearctic Coleoptera 3. Brill, Leiden, 33–52.
- Nomura S (1960) List of the Japanese Scarabaeoidea. Tôhô-Gakuhô 10: 39-79.
- Nomura S (1971) Notes on the Japanese Scarabaeidae, II. The Entomological Review of Japan 23: 64–72.
- Nomura S (1972) On the genus Serica from Japan. Tôhô-Gakuhô 23: 109-143.
- Nomura S (1974) On the Sericini of Taiwan. Tôhô-Gakuhô 24: 81–115.
- Nomura S (1976a) On the subgenus *Parascatonomus* from Japan and Taiwan. The Entomological Review of Japan 29: 25–33.
- Nomura S (1976b) On the Sericini of Japan. II. Tôhô-Gakuhô 26: 167–205.
- Ochi T, Araya K (1992) Studies on the coprophagous scarab beetles from East Asia. II. Giornale Italiano di Entomologia 6: 79–108.
- Ochi T, Kawahara M (2000) A new species of the genus *Trox* from Kyoto, Japan. The Entomological Review of Japan 55: 53–57.
- Ochi T, Kawahara M (2002) Taxonomic notes on some Japanese coprophagous lamellicorn beetles IV. A new subspecies of *Trox setifer* and a new record of *T. opacotuberculatus* from Tsushima Is. Kogane (3): 53–58.

- Ochi T, Kon M, Kikuta T (1997) Studies on the family Scarabaeidae from Borneo 4. The genus *Caccobius* with descriptions of a new species. Giornale Italiano di Entomologia 8: 261–264.
- Ochi T, Kon M (2002) A new horned species of the genus *Onthophagus* from Sabah, Borneo. Special Bulletin of the Japanese Society of Coleopterology 5: 305–312.
- Ochi T, Kon M (2017) Notes on the coprophagous scarab-beetles (Coleoptera, Scarabaeidae) from Southeast Asia. XXVIII. A new genus and three new subgenera of the genus *Parascatonomus*. Giornale Italiano di Entomologia 14: 775–792.
- Ochi T (1984) Two new species of the genus *Onthophagus* from Taiwan and the Ryukyu Archipelago. The Entomological Review of Japan 39: 63–67.
- Ochi T (1991) A new species of *Aphodius* from Taiwan. Japanese Journal Entomology 59: 53–56.
- Ochi T (1992) Studies on the coprophagous scarab beetles from East Asia. I. Giornale Italiano di Entomologia 6: 9–14. [In Japanese]
- Ochi T (2000) Taxonomic notes on some Japanese coprophagous lamellicorn beetles. Kogane (1): 43–50.
- Ochi T (2001) Taxonomic notes on some coprophagous scarab-beetles (Coleoptera, Scarabae-oidea) from Japan and its adjacent areas I. Kogane (2): 43–45.
- Philips TK (2016) Phylogeny of the Oniticellini and Onthophagini dung beetles (Scarabaeidae, Scarabaeinae) from morphological evidence. ZooKeys 579: 9–57. https://doi.org/10.3897/zookeys.579.6183
- Pittino R (2006) Trogidae. In: Löbl I, Smetana A (Eds) Catalogue of Palaearctic Coleoptera, Vol. 3. Scarabaeoidea Scirtoidea Dascilloidea Buprestoidea Byrrhoidea. Stenstrup, Apollo Books, 26–28.
- Sawada H (1941) The Valginae of the Japanese Empire, report II. Nippon-no-Kôchû 4: 1–14. Scholtz CH, Grebennikov VV (2016) Scarabaeoidea Latreille, 1802. In: Beutel RG, Leschen RAB (Eds) Handbook of Zoology. Arthropoda: Insecta, Coleoptera, Beetles, Vol. 1, Morphology and Systematics (Archostemata, Adephaga, Myxophaga, Polyhaga partim). Walter de Gruyter, Berlin / Boston, 443–525.
- Telnov D, Zorn C (2019) *Popillia biguttata* (Wiedemann in Widemann and Germar, 1821) (Coleoptera: Scarabaeidae: Rutelinae) established on New Guinea? With an illustrated key to Sundaland *Popillia* Dejean species. Zootaxa 4683: 577–588. https://doi.org/10.11646/zootaxa.4683.4.7
- Yamaguchi S, Aoki T, Tannowa T (2006) Libytheinae butterflies collected by Akira Motono (Insecta: Lepidoptera: Nymphalidae). Evolutionary Sciences 12: 35–42.
- Yamaguchi S, Kawai S, Aoki T, Sugiura Y, Tannowa T (2007) Japanese butterflies collected by Taira Ichinose (Insecta: Lepidoptera: Rhopalocera). Evolutionary Sciences 13: 77–102.
- Yamaguchi S, Aoki T, Sugiura Y, Tannowa T (2009) Japanese butterflies collected by Makoto Nakamura (Insecta: Lepidoptera: Rhopalocera). Evolutionary Sciences 15: 17–38.
- Yamaguchi S, Aoki T, Sugiura Y, Iida Y, Tannowa T (2011) Papilionid butterflies collected by Yasuo Iida (Insecta: Lepidoptera: Rhopalocera). Evolutionary Sciences 16: 3–91.
- Yamaguchi S, Aoki T, Sugiura Y (2017) Japanese butterflies collected by Yoshihiro Ando (Insecta: Lepidoptera: Rhopalocera). Evolutionary Sciences 20: 9–36.

- Yamamoto M (2000) The Research Institute of Thremmatology in Tokyo University of Agriculture 50 years history and the Research Institute of Evolutionary Biology 25 years history. The Research Institute of Evolutionary Biology, incorporated foundation, 85 pp.
- Wada K (1990) A new species of the genus *Peltonotus* Burmeister (Coleoptera, Scarabaeidae, Rutelinae). Lamellicornia (6): 1–4.
- Wada K (2001) Five new species of the genus *Mimela* (Coleoptera, Scarabaeidae, Rutelinae) from Borneo and Java. Elytra 29: 109–118.
- Ziani S, Bezděk A (2016) Onthophagini. In: Löbl I, Löbl D (Eds) Catalogue of Palaearctic Coleoptera 3. Brill, Leiden, 180–204.
- Zorn C, Bezděk A (2016) Rutelinae. In: Löbl I, Löbl D (Eds) Catalogue of Palaearctic Coleoptera 3. Brill, Leiden, 317–358.